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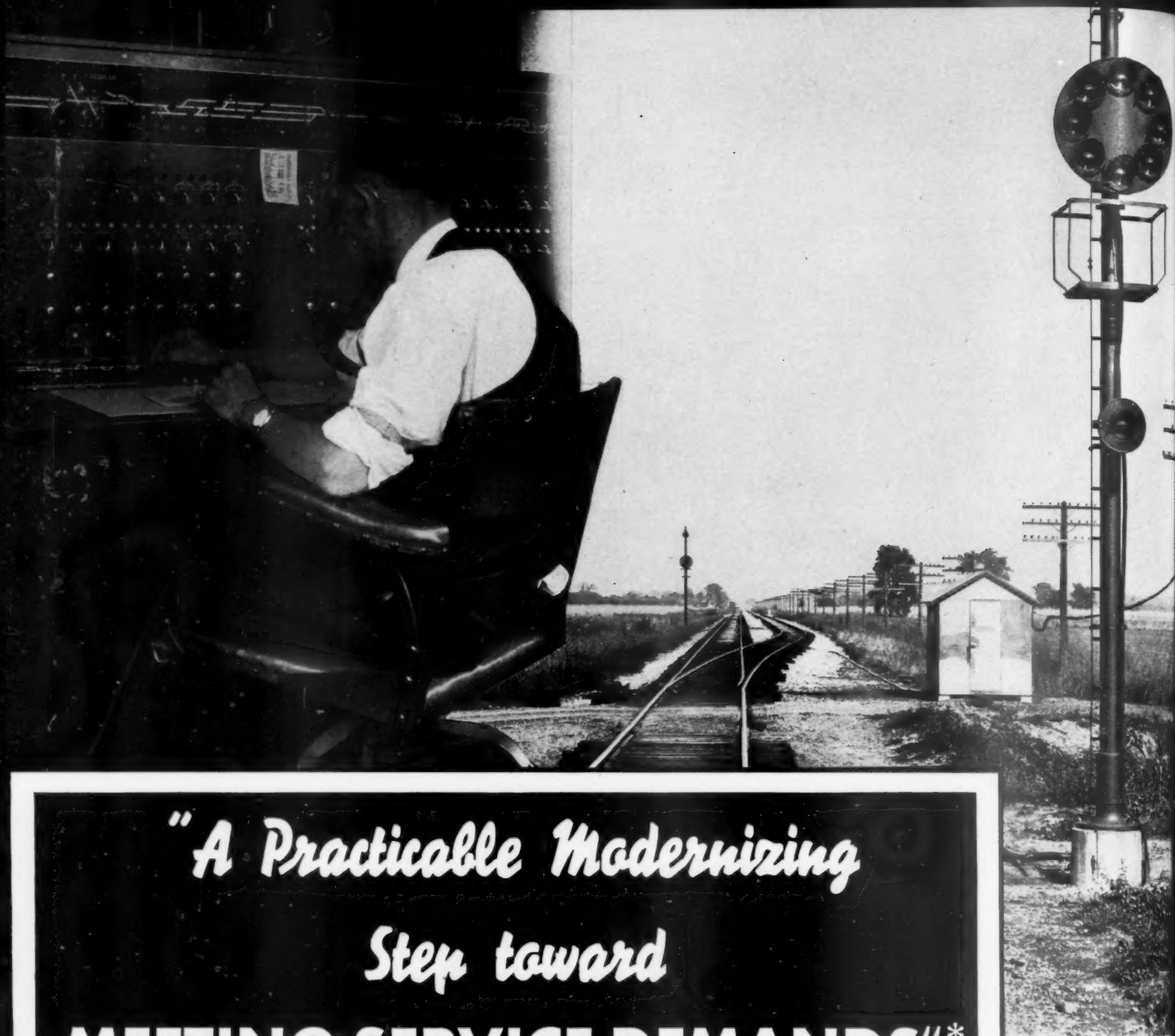
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The Railway Age is indexed by the Industrial Arts Index and also by the  
Engineering Index Service



*"A Practicable Modernizing  
Step toward  
MEETING SERVICE DEMANDS"\**

And, speaking of Centralized Traffic Control, this Committee of the Superintendents says further: "The time seems to be approaching when single track operation by train orders on reasonably heavy traffic lines will be recognized as antiquated. \*\*\* It is believed the speed requirements of today will force the consideration of centralized traffic control in territories where the density of traffic (and retarded movement by use of train orders) justifies the expenditure, and provide



for operation by signal indication in other territories by placing signals and switches under the control of operators. It is recognized that the initial investment for such improvements may be large, but in many cases compensating savings make practicable this modernizing step toward meeting service demands. It seems to your committee that these items offer important means by which the performance of road trains can be improved, particularly in single track territory."

May we tell you the complete story of "Union" Centralized Traffic Control?

\* Subject Committee No. 4, A. A. R. S.

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## RAILWAY AGE

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# Does the Public Interest Require A New "Commodities Clause"?

The bill introduced by Senators Wheeler and Truman (S.2009) to revise the Interstate Commerce Act contains a new "commodities clause." The original "commodities clause" was enacted in 1906. It made it unlawful for any railroad company to transport in interstate commerce "any article or commodity, other than timber and the manufactured products thereof . . . which it may own in whole or in part, or in which it may have any interest, direct or indirect, except such articles or commodities as may be necessary and intended for its use in the conduct of its business as a common carrier."

The new "commodities clause" would make it unlawful, after January 1, 1941, "for any carrier, other than a carrier by air, to transport, in commerce subject to this Act, any article or commodity, other than timber and the manufactured products thereof . . . in which such carrier, subsidiary, affiliate, or controlling person has any interest, direct or indirect, legal or equitable, except such articles or commodities as may be necessary or intended for use in the conduct of the carrier business of such carrier." The importance of the new clause is that it would be applicable to carriers by water, highway and pipe line, as well as by railway.

### The Original "Commodities Clause"

The purpose of the original clause was to prevent a large corporation from engaging in two or more kinds of business to the detriment of smaller concerns able to engage in only one kind of business. Its practical effect was to force the railroads out of mining and selling coal in which some of them were extensively engaged. It was adopted after investigations showing that numerous companies were using their power as operators of both railroads and coal mines to undersell companies engaged only in coal mining and thereby to establish virtual monopolies in the coal mining business. In the history of anti-monopoly legislation there has been no single measure which in its day was so effective in restoring and preserving competition.

It was recognized, however, that the act was not just a stop-gap measure to correct evils growing out

of the ownership of railways and coal mines by the same companies, but rather that it had a wide and theoretically sound general application. Professor T. L. Kibler said in his book, "The Commodities Clause," published in 1916:

"The merging of diverse interests, whether railroad and coal mine, or other, will invariably place at a disadvantage those interests that are not so joined, and this will enable the former to undersell and, ultimately, to force out the latter. This tends ultimately to monopoly control by the corporation having the advantage. This principle is true with respect to any two industries that are complementary in their nature. It is doubly true where one of the factors of the merger is a transportation company and the other produces goods to be shipped."

The above observation of Professor Kibler is as true and sound today as when he wrote it. There have been, however, profound changes in conditions—changes in which the railroads have lost their monopoly position in transportation, and in which other industries own and operate means of transport, rather than the other way around. In other words, the commodities clause no longer gives the protection against monopoly which it did when it was enacted—a protection which is badly needed in the public interest.

### Why Small Business Complains

What are the situations contrary to the public interest which have arisen because the commodities clause is no longer able (because of the growth of other means of transportation) to prevent transportation and other business from being conducted by the same corporation? Well, for one example, take the following statement recently made by W. H. Reed, an independent oil jobber at Memphis, Tenn.:

"I have been in the oil business since the World War. I have sold over 100,000,000 gallons of oil in the South. I buy gasoline and kerosene, and other oil products, in tank car capacity. The gasoline and kerosene that I buy is brought to Memphis—by barge. The barge unloads its cargo into a river terminal at Memphis. When I buy a tank car of gasoline, the gasoline is pumped from storage tanks at the river terminal and then is switched to my plant.

"Why I buy a tank of gasoline, I pay the spot market price for the gasoline. But, in addition, I have to pay the oil company as freight the railroad freight rate on gasoline from Shreveport, La., to Memphis. It came to Memphis by water from the New Orleans refining district. The actual water



charge on this gasoline is about one-half cent a gallon, but I have to pay a railroad rate from Shreveport, which is over 2 cents per gallon. In money, this means that every time I get a 10,000-gallon car of gasoline, the oil company makes \$150."

This situation against which Mr. Reed complains is exactly parallel to the situation which existed in the transportation and the coal businesses back in 1906 when the commodities clause was enacted to correct it. The "little fellow" in the oil business today hasn't the money to buy a fleet of barges for himself and go into the transportation business—any more than the "little fellow" in the coal business back in 1906 had the money to buy or build a railroad. And the "little fellow" in the oil business today sees the profits drained away from him and into the pockets of the big corporation in the same way that the "little fellow" back in 1906 saw the producing-and-transportation combine operate to take his profit away.

### Big Business on Inland Waterways

The independent producer who does not own unregulated transportation facilities is just as much up against it today in trying to compete with bigger and richer corporations which do own such transportation facilities, as were the independent coal operators back in 1906 in competing with a coal-transportation combine.

But Big Business today, despite its criticisms of the New Deal, is actually getting more favors of some kinds at the hands of the government tending to enable it to squeeze the "little fellow" out than ever it got before. Senator Wheeler brought this out clearly at the recent hearings on his and Senator Truman's bill (S.2009) for transport regulatory reform. He elicited the fact, in questioning waterway witnesses, that, generally speaking, *large corporations shipping by inland waterway, and often owning the carriers in which they ship, do not pass along the savings in transportation charges to their customers.* It follows, of course, that corporations big enough to ship in barge-load quantities collect a much larger margin of profit for themselves than the "little fellow" whose production is such that he has to ship by the carload. So, the net effect of shipper-operated boats on inland waterways is to enhance the profits of the transportation-plus-production combine today just as it did before the enactment of the original commodities clause. The costs of carriage by water borne by the big shipper are lower than by rail because government, at the expense of the taxpayer, provides him a waterway free of charge; but the consumer does not benefit because the barge-operating producer and shipper usually charges the consumer the same prices as if the freight were moved by rail.

### Subsidizing Big Business on the Highways

Nor is the evil of the transportation-plus-other-business combine limited to the waterways. It is this same combination of functions in highway transportation which is ruining many independent businesses. Small

local merchants are at a disadvantage in competition with chain store companies because the latter are large enough to own and operate government-subsidized fleets of trucks in distributing their own freight. Grain elevators, produce concerns and local retail merchants dealing in fruits, vegetables, coal, building materials, etc., are ruined by trucking organizations which combine transportation with the grain, produce or retail business. So in many businesses it is getting to be that a man cannot set himself up with any hope of success unless he also has enough capital to get into the transportation business on the side. And, of course, the more capital that is needed to start a business, the fewer small businesses we are going to have. The whole set-up today is, more than ever before, one to encourage the big fellow and discourage the little one.

We do not, however, believe that the situation is one which can be satisfactorily solved by a simple extension of the commodities clause to cover all forms of transportation. We are opposed to restrictive measures being adopted against the railroads except insofar as a clear showing can be made that such restrictions are necessary to protect the public interest—and we are equally opposed to restrictive measures against other business, however big, except for the same reasons. There are some barges and some trucks—and even a few railroads—which are operated by industries virtually as plant facilities, i.e., primarily for the transport of materials in process of manufacture. Unless it could be shown that such facilities were working injury to the public interest, there would be no reason for disrupting such arrangements.

### Comprehensive Investigation Needed

It is greatly to the credit of Senators Wheeler and Truman that they have recognized the need of an extension of the commodities clause to agencies of transportation other than the railroads, and have put forward tentative proposals to enlarge its scope. But some witnesses in testifying on the proposed new commodities clause have expressed the opinion that it is "too drastic," and Senator Wheeler has been inclined to agree with them. So do we. The situation to be dealt with may be much too complex to be corrected by such a sweeping restriction without involving hardship where no useful social purpose would be served.

The other proposal which the two senators have made seems to us wiser. It is contained in Sec. 5 of S.2016, the so-called "Holding Company Bill." This provision would direct the Interstate Commerce Commission to make a wholesale investigation into the transportation operations (private as well as contract or common carriers) of industrial, mining, agricultural, and commercial enterprises—whether they engage in such operations directly or indirectly. Under this proposal, the investigation by the I. C. C. would be a preliminary to an order requiring the separation of transportation from production under a wider commodities clause. If



this plan were followed disruptions of existing arrangements would be avoided unless it could be clearly shown that the public interest requires such a divorce.

### Benefiting Big Business by Transportation Discriminations

The transportation situation of this country is chaotic because so many vested interests have grown up around every aspect of the chaos. Until factual information is available as to what actual practices are with respect to the large and rapidly growing segment of transport not reached by any form of regulation, remedial legislation is bound to be a shot in the dark—quite as likely to wound a friend as to fell an enemy. But this much we do know:

1. That the principal beneficiaries of inland waterway transportation are large corporations that are thus given an unfair advantage over competitors not able to ship by the barge-load.

2. That these large corporations frequently make a practice of selling their products at destination at the f. o. b. price plus the *railroad* freight rate, thus preventing their customers from benefiting by the savings in their transportation charges due to their free use of government-provided waterways.

3. That these unfair practices, so evident on the inland waterways, are carried on extensively in connection with truck transportation.

Those three obvious observations alone are *prima facie* evidence that such an investigation as is proposed in Sec. 5 of S.2016, the "Holding Company Bill," is emphatically required in the public interest. In fact, any comprehensive dealing with the transportation situation by Congress which ignores it is likely to be an operation in which the surgeon will discover that he has sewed up his scissors in the patient's belly.

Certainly if it is to continue to be assumed that there is economic justification for prohibiting *railway* transportation and other kinds of business from being carried on by the same companies, then there is economic justification for full investigation of the extent and effects of *waterway* or *highway* transportation and other kinds of business being carried on by the same companies. If the former did (or would) cause unfair competition, it is a virtual certainty it would be found that the latter does result in unfair competition.

## The Cost of a Train Stop

The savings in train time, fuel, water, and miscellaneous items that can be effected by eliminating a train stop constitute an important consideration when calculating the justification for the installation of interlockings, power-operated or spring switches, and signals at outlying points, as well as coaling and water facilities, or when determining the capacity of locomotive tenders.

A number of years ago the Illinois Central made road tests and from them determined that the saving effected by eliminating a stop of an 11-car passenger train was 50 cents and 6 minutes time, while the saving for an 80-car freight train was \$1.45 and 9 minutes time, and if the freight train ran into overtime before reaching the terminal the saving was increased to \$2.30. In 1930, when considering the justification for automatic interlockings, the Atchison, Topeka & Santa Fe determined that \$2 per freight train stop eliminated was a conservative figure. The Cleveland, Cincinnati, Chicago & St. Louis made detailed tests in 1929, using stop-watches and markers, and determined that a typical freight train could be headed into a siding in six to nine minutes less time, and headed out in eight minutes less time, if it did not have to stop to permit handling the switches. Tests over an extended period on the Southern agree that eight minutes is a fairly accurate figure for the time saved when pulling out of a siding.

Granting that the time saved is subject to accurate measurement, experts have disagreed widely on the savings in coal, water and miscellaneous items that can be made by eliminating a train stop. Realizing the need for accurate figures, the Committee on Economics of Railway Signaling of the Signal Section, A. A. R., has been working on this project for five years, and at the convention last month it presented a report on the costs involved in stopping trains, as published in abstract on page 493 of the *Railway Age* for March 18.

By the use of curves and equations included in this report, and by using data as to weights of trains, characteristics of locomotives, and grades, it is possible to determine the power dissipated in making a stop, and the power required to regain normal running speed, in terms of h. p. hours of work, as compared with the power required to run through at normal speed without a stop. By using unit costs and B.t.u. values of fuel, and unit costs of water, the equivalent money value can be ascertained. The load per car and the number of cars are other important factors. A typical example in the report deals with a 2-10-4 locomotive handling a train of 6,450 tons of 80-ton cars on level track being stopped from a speed of 45 m. p. h. The energy wasted represents 345 h. p. hours of work. This figure, in terms of fuel and water cost, represents \$2.08, and including the fuel burned during a six-minute stop the total is increased to \$2.37.

Charts in the report apply to three different types of locomotives as typical of certain classes. Other curves of this character can be developed for individual types of locomotives. Thus, by using the curves and equations shown in the report, the railroads can calculate the cost of train stops made by trains of certain weights, operated by certain classes of locomotives, giving consideration to the grades and curvature of the particular piece of track on which the stops are to be made. This report has long been needed in the railroad field, and will be very useful in making accurate calculations of the costs involved in stopping trains.

# Railroads at Golden Gate Fair

Scenic and recreational marvels of the West, shown in dioramas and animated displays

**W**ITH the railroads playing a major role as a transportation medium for the West, the Golden Gate International Exposition, located on Treasure Island in San Francisco Bay, is presenting a picture of the industrial progress and vacationland marvels of the world. While the "pageant of the Pacific" depicts the strides made by Western America and the Pacific Basin, both industrially and as a vacationland playground, the encouragement of travel to the Pacific coast is the paramount objective. Consequently, the largest of all the buildings is dedicated to the scenic and recreational features of this territory. Known as Vacationland, and covering more than four acres, this building brings all the west under one roof in dramatized form. Participating in Vacationland are railroads, motor manufacturers and automobile clubs, travel bureaus and other interests allied with travel. The dream of the hunter, fisherman, camper and hiker are epitomized in this building, measuring 200 ft. wide, 900 ft. long and 80 ft. high.

In this exposition, the romance and economic value of the rails plays an important part. The "J. W. Bowker" locomotive of 1875 occupies a position of honor as one of the historic factors which helped build the west. Sixty-three years ago, the Bowker, built by the Baldwin Locomotive Works, was placed in passenger service on the Virginia & Truckee. Later it was sold to the Sierra Nevada Lumber Company and for the next 20 years, from 1896 to 1916, the Bowker hauled lumber trains over the line daily. When the mills were abandoned it was presented to the Pacific Coast chapter of the Railway & Locomotive Historical Society as a relic of early day transportation. It was brought to Oakland, Cal., by the Southern Pacific, and was restored to its original appearance by members of the chapter for the exposition.

Another of the famous old Iron Horses has played an important part in the construction of the fair grounds. This locomotive, built by the Baldwin Locomotive Works for the McCloud River R. R., was known as the "Siamese Twins," and was used in lumber operations on Mt. Shasta. It consisted of two engines, joined cab to cab, with levers so connected that they could be operated together or separately. Later the locomotive was cut into separate units which were used as switch engines. Recently one-half of this historic pair was sold to the contractors for many of the major buildings on Treasure Island, and was used to haul building material there.

The exhibits of railroads and allied industries likewise occupy an important position among the displays in Vacationland. Seven railroads, the Southern Pacific, the Atchison, Topeka & Santa Fe; the Union Pacific; the Chicago & North Western; the Denver & Rio Grande Western, and the Western Pacific, together with the Pullman Company and the Railway Express Agency, Inc., are demonstrating the advantages of railroad travel.

## Southern Pacific

The largest railroad exhibit is that of the Southern Pacific, with 5,142 sq. ft. It is known as the Southern Pacific Round House, and its appeal to the public is

based principally upon the widespread interest in trains and locomotives. In the circular section of the space, which is enclosed so that it is a building within a building, is the roundhouse proper, the main feature of which is a series of four spectacular dioramas through which model trains operate. These dioramas illustrate the types of territory served by the Southern Pacific's "Four Great Routes," depicting the Old South, the Southwest, the crossing of Great Salt Lake and the Shasta Route territory. Above these dioramas, which are seen through large apertures in the wall, is a series of photographic murals featuring different types of locomotives, ranging from the "C. P. Huntington" to a Golden State or GS-3 type locomotive.

By careful lighting and scaling of the diorama scene to the size of the trains, which are one-quarter inch scale, a striking effect is produced, involving much the same principle as in a puppet show where the puppets seem life-size and the stage settings are related in size to the puppets with the lighting focused on the scene. The model trains which operate through the dioramas show the progress in Southern Pacific transportation from early days to the present time. In the Roundhouse are operators for the model railroad and technical men for answering the questions of visitors. As a special feature, boys are given copies of a Southern Pacific Train Primer, a locomotive booklet prepared by the railroad, and an examination sheet based on information contained in the booklet, so that upon answering the questions they may secure a coat button of blue and gold, labeled "Southern Pacific Junior Engineer," and a rule book for the good conduct of junior engineers.

Another feature of the Southern Pacific's exhibit is a full sized animated replica of the driving wheels, driver rods and valve gear of the streamlined GS-3 type locomotive which hauls the company's "Daylight."

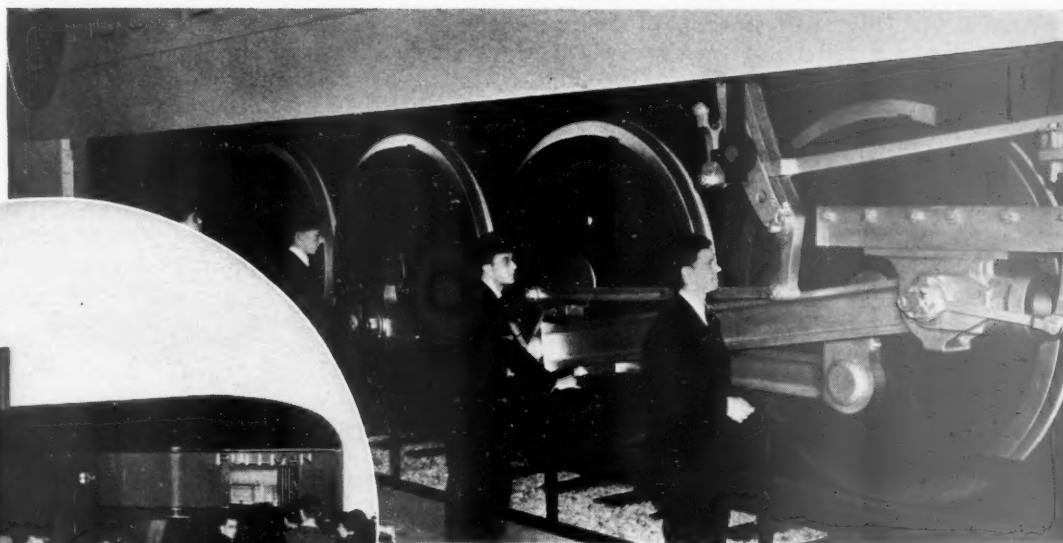
One room of the Southern Pacific's exhibit portrays its freight service, with an animated display showing the operations of its overnight freight service between Los Angeles and San Francisco and an exhibit of projected natural color pictures of its perishable freight service. Another room features passenger operations with a giant map hooked up with a projected series of natural color slides showing scenes along the Southern Pacific with lights on the map indicating the location of each scene. Another map shows the location of each freight and passenger train at 10 o'clock on an average night. Another section deals with Mexico and includes a projected color picture of Mexican art and craft products.

Photographic murals in the central section of the exhibit adjacent to the information desk emphasize the human element of the railroad, with actual scenes of employees in action. Another item of interest is the sale at cost of a 100 ft. 16-millimeter moving picture film of Southern Pacific locomotives.

## Atchison, Topeka & Santa Fe

The Atchison, Topeka & Santa Fe is dramatizing a modern railway scene through the medium of a com-

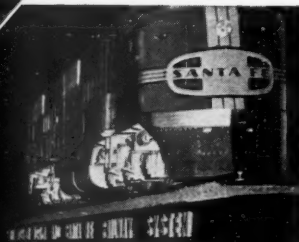
In the Southern Pacific's Roundhouse Are the Daylight's Locomotive Wheels



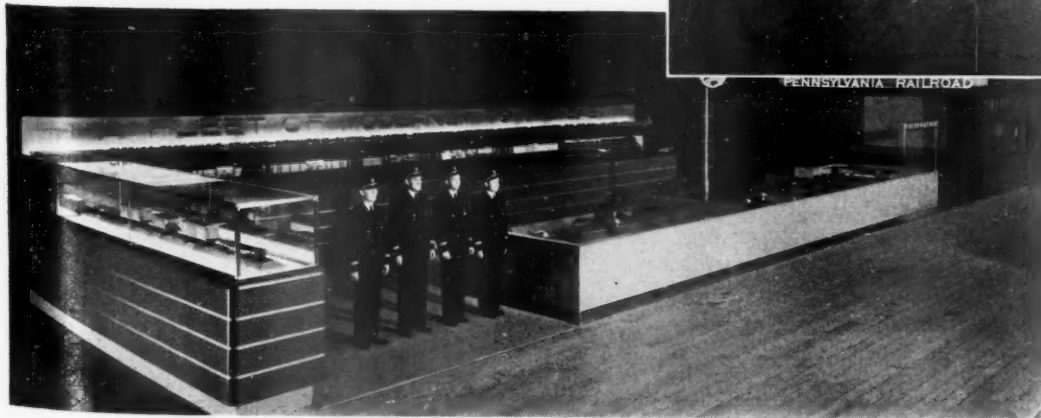
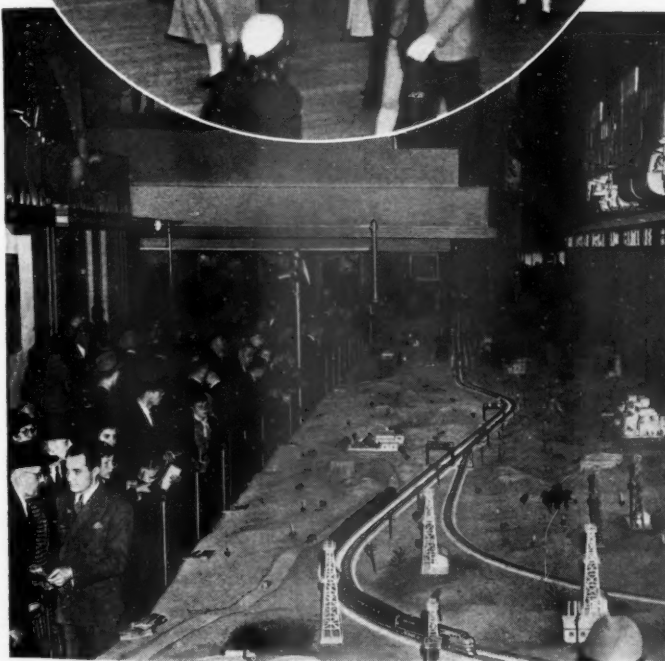
All Types of Pullman Accommodations Are on Display



Twenty Atchison, Topeka & Santa Fe Trains Operate on 500 Ft. of Track



Living Actors Perform on the Chicago & North Western's Stage



Motion Pictures, Dioramas and Model Trains Feature the Pennsylvania's Exhibit



plete system in miniature. "Miles" of miniature track typify, through dioramas, areas reached by the Santa Fe system. Actually, 20 trains of all types are operated electrically over 500 ft. of tracks, every inch of which is controlled by electric signals. All routine operations are duplicated, such as freight trains being shunted to passing tracks while passenger trains are given the right of way.

### Union Pacific

The Union Pacific is drawing attention to winter sports at Sun Valley, Idaho, and other western points of interest. A miniature railway system, operating on a 65-ft. relief map, passes through scenic regions, nine of which are vividly shown in dioramas at the rear of the exhibit. These include the Grand Canyon, Yellowstone, Sun Valley and the Columbia River region. Streamliners and conventional passenger and freight trains are shown as they operate from the Middle West to the Coast.

### Chicago & North Western

Living actors, replicas of streamlined locomotives on a large scale, and miniature streamliners in motion are features of the Chicago & North Western exhibit which is housed in a cabinet, 37 ft. long, 35 ft. high and 19 ft. deep. In its center is a stage, curtained by a map of the North Western's territory and the principal cities it serves. The curtains are parted to show scenes demonstrating equipment and service, with living actors discussing the recent advancement of railroading. Flanking the stage are the "49er" and the "400," and beneath are two miniature tracks on which model streamliners move in opposite directions. Illuminated medallions bearing the names of the principal North Western trains surround the cabinet.

### Pennsylvania

Ample lounge space, with a dramatic background of motion pictures, animated dioramas including model trains, and transparencies feature the Pennsylvania's exhibit. High spots of the display depict to the eye the latest types of facilities and service offered to passengers and shippers by a railroad of today. Graphically it shows on a large map how the Pennsylvania serves the nation. Colorful dioramas, with scale model trains and appropriate scenic backgrounds illustrate the operation of modern freight and passenger trains. Interspersed between the diorama showings, short moving picture subjects depict various phases of modern railroad service and progress.

On the outside wall of the diorama and "movie" theatre, colored transparencies illustrate scenes of unusual and historic interest in eastern cities and resorts directly on the Pennsylvania. Displays of large scale models showing the interiors of the ultra-modern cars of the Broadway Limited exemplify the attractions and luxury of its new "fleet of modernism."

In keeping with the railroad atmosphere, a standard Pennsylvania position light signal of the newest type, mounted on a signal standard, shows the "clear," "approach" and "stop" positions in recurring cycles, stressing the emphasis placed upon safety.

The dioramas of transportation illustrate three important phases of Pennsylvania service. In one, a streamlined passenger train of the latest type is seen in the eastern electrified territory, drawn by an electric locomotive. Another passenger train is headed by a modern

type streamlined steam locomotive. A freight train is shown hauled by a heavy-duty steam locomotive.

The movie "shorts" prepared for the exhibit include four subjects and provide a fifteen-minute show. A trip from Chicago to New York on the new streamlined Broadway Limited occupies one film. Another is taken up with a trip to Washington.

Appealing particularly to the fruit and vegetable growing sections of the West and the Pacific coast is a series of shots showing how the fresh products of farm and orchard are rushed to market by rail, protected on the way, and swiftly delivered to the great terminal markets of the East.

The closing film, entitled "Steel Thunderbolts," illustrates the recently completed electrification project of the Pennsylvania in its eastern territory.

Large scale cross-section models of Broadway Limited cars are approximately five feet in length and the interior appointments and decorations are shown in detail. The cars include a modernistically designed Pennsylvania diner and four types of Pullman cars providing up-to-date private room accommodations, including the new roomette and master bedroom, and other new features of long-distance travel, such as the club-lounge and observation cars. The locomotive is a large scale model of the Pennsylvania's newest type of highspeed streamlined passenger locomotive.

### Denver & Rio Grande Western

The Denver & Rio Grande Western portrays many regions along its lines, with the aid of transparencies, dioramas and feature films on travel. Its movie auditorium seats 50 persons. Its dioramas include the Moffet Tunnel and the Royal Gorge.

### Western Pacific

The Western Pacific display is dominated by an animated picture in color and in two parts. One shows the observation car of the Scenic Limited and the other a front view of a locomotive. Another animated picture in colors shows the train threading the Feather River canyon.

### Pullman Company

The Pullman Company is showing the utmost in travel comfort by rail. An exhibit 67 ft. long has, arranged in the order named, a tourist section, a standard convertible single-occupancy section, a roomette, connecting double bedrooms, a compartment, a drawing room and a lounge-observation room. Each accommodation is of the latest type, with all the appointments indigenous to the most modern Pullman equipment. The entrance side to the accommodations presents a longitudinal section of a Pullman car with glass panels in the wall for each unit of space, to increase the visibility for visitors. The other side represents the exterior of the car. Each accommodation carries in large letters, directly above it, a sign identifying the type of space. Comfortable chairs and settees invite the guests to rest and inspect the exhibit at their leisure.

### Railway Express Agency

The Railway Express Agency is dramatizing its part in transportation through its "Century of Service." This exhibit centers around a magic panel whose five-by-seven-foot expanse tells two stories. One story is told in  
(Continued on page 694)



Looking East Toward the Sharply Skewed Crossing Over Broadway

## Architectural Details Feature Grade Separation at Toledo

Effective double-track Wabash structure on sharp skew over two-level roadway has unusually pleasing appearance

OF the many grade separation projects carried out during 1938, one of the most effective and pleasing in appearance was the two-track crossing of the Wabash over Broadway, at Toledo, Ohio. Consisting of through plate girder spans painted an off-white, on concrete piers, abutments and wing walls, the structure is not unique in fundamental design, but is entirely adequate to meet the situation involved, providing two one-way roadways, flanked by sidewalks, and incorporates modernistic architectural treatment of the concrete work, which marks it as distinctive in appearance.

From a structural standpoint, the crossing is of special interest because of its sharp angle with the street, which entailed a length of approximately 300 ft. to effect a right angle street width of 84 ft.; its two-level roadway, provided to take advantage of the sharp angularity of the crossing in minimizing roadway excavation costs and to effect the most desirable intersections of lateral streets; and such problems encountered in construction as the lining of a 72-in. concrete water main through the excavated area with steel liner plates to protect it against damage during construction operations and to enable it to resist its water pressure with its reduced cover.

### The Original Situation

The project involved the single-track Toledo-St. Louis main line of the Wabash and a siding, which, extending in a general east and west direction, crossed Broadway, one of the heavy traffic arteries of Toledo, at an angle of 16 deg. 34 min. 30 sec., approximately three miles west of the Union station. Broadway at this point was 70 ft. wide between outer sidewalk lines, which meant that approximately 250 ft. of the thoroughfare was obstructed

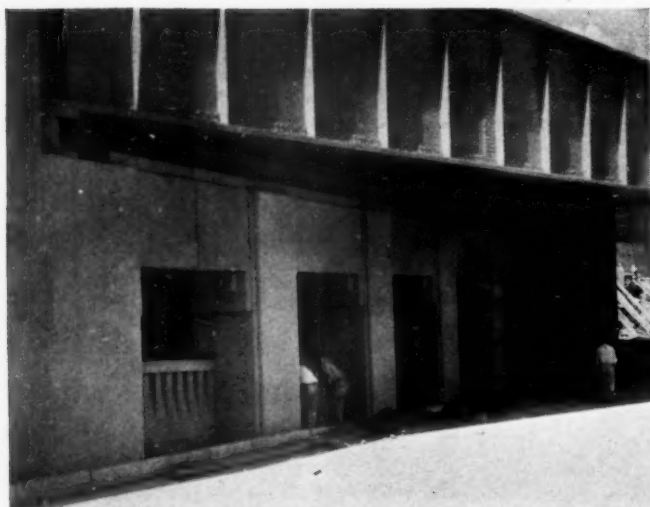
by tracks. This situation was complicated further by the intersection of three other streets directly at the crossing, including Broadway place and Lorain street on the north side, and Waterworks drive on the south side.

The railroad approached the crossing from the east on a long ascending grade of 0.35 per cent, but the crossing itself was practically level at the general elevation of the streets in this vicinity. Consideration was given to various schemes of effecting the separation of grades at this point, but the most effective solution, with due consideration to railway and street grades, the location of water mains and sewers beneath the street, and property damages, appeared to be that adopted, which involved raising the tracks 7½ ft. and the lowering of the roadway the remaining distance necessary to permit a minimum of 14 ft. clearance under the railway structure. This required raising the track for a distance of more than a mile to a maximum of 0.5 per cent approaching the crossing. Further lowering of the street was precluded, or at least made undesirable, by the presence longitudinally beneath it of a 72-in. concrete water main, which is the main feeder of the city water system. Even in the arrangement adopted, the bridge pier footing came so close to the main and the cover over it was reduced to such an extent, that it had to be afforded special protection during the work. The means employed to this end, which formed an interesting phase of the project as a whole, will be described later in this article.

### Long Spans Required

In the plan adopted for the separation project, Broadway, beginning about 500 ft. each way from the center of the crossing, was widened to provide two 27-ft. traffic





Looking Beneath the Structure Toward One of the Inner Abutment Walls

lanes, with a center island, 8 ft. wide, between them, and 6 ft. wide sidewalks along their outer sides. This required a minimum width of 84 ft. at right angles between abutment faces, and, because of the skew of the crossing, a distance of about 300 ft. between them along the center line of the bridge structure.

The superstructure of the bridge consists of two entirely independent two-track through plate girder structures, end to end, over the two roadways, flanked by

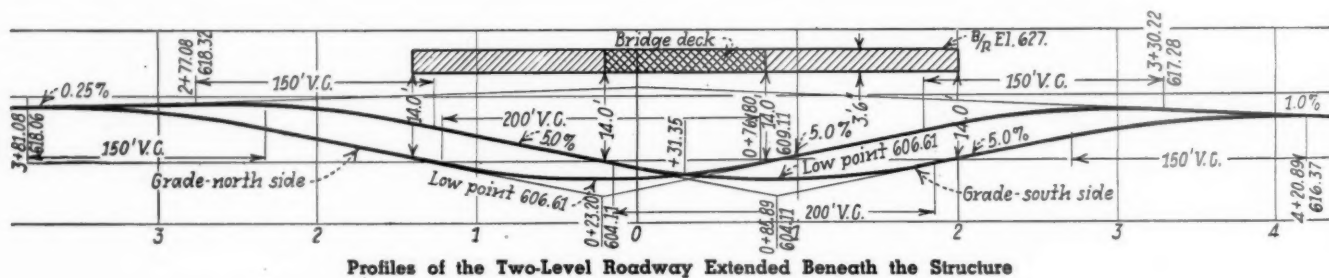
is taken care of in the concrete deck slab which encases the upper parts of the deeper beams while resting on the top flanges of the shallower beams. Furthermore, the deck is designed to slope toward the area of the shallower beams for surface drainage.

At the girders, the floor beams are framed into the webs at right angles, while at both the abutments and the piers they are given support on continuous I-section bolster beams, which, in turn, rest on flat steel masonry plates at intervals of about three feet. This latter arrangement provides better ventilation for all of the steelwork involved, with less tendency for corrosion, while it will also simplify cleaning and painting operations when these may be required.

The deck slab over each roadway, which is continuous between girders and abutment and pier supports, is reinforced both top and bottom, and with its waterproofing is carried up around the low parts of the girder webs and knee braces and shaped to provide drainage troughs where required. All drainage water from the deck is carried through pipes into the street drainage system.

### Abutments and Piers

The abutments of the bridge are of the reinforced hollow-box type, with the opening in each case providing a clear sidewalk area six feet wide. The backwall of each abutment, unbroken in its expanse, retains the railroad fill, while the front wall, which is a series of rectangular piers 4 ft. thick and 6 ft. long, with open spandrels 10 ft. 6 in. between them, supports the steelwork of the bridge deck. Both walls of the abutments rest on



narrow concrete spans, forming a part of the abutments, over the side walkways. The only feature common to the two steel spans is that they have common, yet independent, support, on the same pier located longitudinally on the centerline of the island separating the roadways.

The girders of each roadway span are approximately 120 ft. long, center to center of bearings; are 9 ft. 6½ in. deep, back to back of flange angles; and are spaced 36 ft. 6 in. center to center to carry the two tracks on 15-ft. centers. The deck structure consists of a relatively thin concrete slab supported on transverse I-beams, and carries a stone ballast section and tracks of standard construction. The deck slab is waterproofed on top with an asphalt and fabric built-up waterproofing, the waterproofing being protected against the cutting action of the ballast by a layer of ¼-in. asphalt plank.

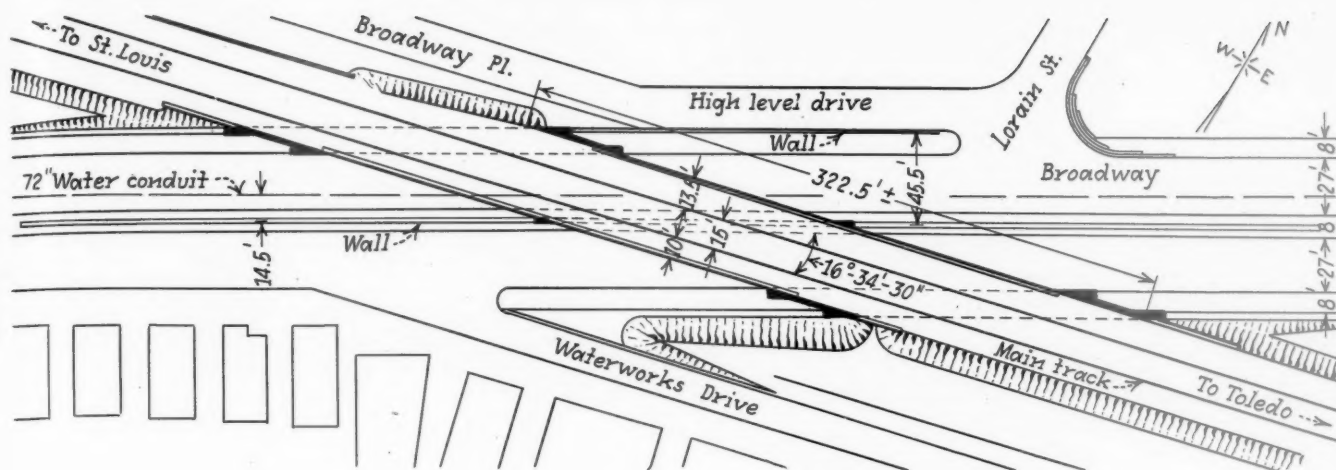
The floor beams, located at right angles to the girders, vary in length from a minimum of a few feet at the points of the sharply skewed deck plan to a maximum length of 36 ft. 5 in. where they span the full distance from girder to girder. Advantage was taken of this variation in length in selecting the floor beam sections, which range from a group of 12-in. beams where of the shortest length, to a group of 27-in. beams where of the maximum length. All of the beams have a uniform base level, and compensation for their different depths

a common continuous spread footing, 18 ft. 6 in. wide, and together support a roof or deck slab which carries the railroad roadbed over the abutment area. No foundation problems were encountered at either abutment, and a porous back fill laid up behind each, supplemented by vertical sections of perforated pipe leading to a horizontal drain at the base, insures against subsequent water problems.

A feature of the abutments is their massive appearing portals, dominated by bold streamlined pilasters which are carried up to a height just above the top of the span steelwork and smoothly rounded off into the horizontal. Joining the pilasters to obscure the abutment deck slab and the track structure is a deep concrete fascia beam or spandrel, which has a vertically fluted face in harmony with the bold vertical lines of the pilasters themselves. Other architectural features of the abutments are stepped offsets provided along the inner faces of their walls at their roof line, giving the appearance of continuous brackets supporting the roof slab, and ornamental concrete balustrades, with massive hand rails and balusters, in the open spandrels of the front wall.

In harmony with the treatment of the abutments are the wing retaining walls and the center pier, the wing walls having offsets in their faces to give a panel effect, and being surmounted by concrete balustrades. The



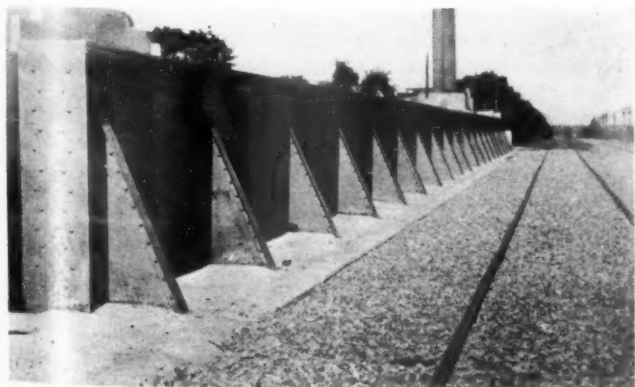


General Plan of the Wabash Grade Separation Project at Broadway, Toledo, Ohio

center pier, on the other hand, closely simulates the inner abutment walls in that it has a prominent streamlined pilaster at each end, rising above the steelwork and obscuring the junction between girders, and open spandrels between massive rectangular columns, obstructed only by sections of the ornamental concrete balustrade. Set out on the center pier pilasters in bold black letters is the word "Wabash," which effectively identifies the crossing, while in no way marring its appearance. Like the abutments, both the wing walls and the center pier rest on spread footings which were placed without difficulty except for the extra care necessary where the center pier excavation came within a few feet of the 72-in. concrete water conduit in the street.

Another feature of the grade separation project is the night illumination afforded continuously beneath the bridge deck. This is effected by means of special luminaries with 150-watt lamps, there being a total of ten such units for each roadway (five on each side) and five for each sidewalk. All of these units, which have weatherproof cases, polished aluminum reflectors, widely refractive lenses and wire grid protectors over their faces, are supplied with current from the city street lighting system, with which they are synchronized.

All of the concrete used in the grade separation structure, including that in the deck slabs, was designed in accordance with the absolute volume method, in which both the quantity and size of the aggregates and the water content are carefully controlled. For the abutments, center pier and all walls and footings, a 1:6½ mix was used, while in the deck slabs a 1:5½ mix was used.



The Lower Rear Sides of the Girders Are Completely Encased in a Continuation of the Deck Concrete

Since a large part of the concrete work was done during the winter of 1937-1938, special precautions were taken to prevent damage to newly placed concrete by freezing. Whenever the temperature was below freezing, both the aggregates and the mixing water were heated, and the concrete in place was covered with canvas tarpaulins and steam cured. The steam curing was effected by perforated steam pipes placed behind the tarpaulins, which were fed from a portable steam boiler set up on the job. In all cases the steam curing was continued for a minimum of 120 hr.

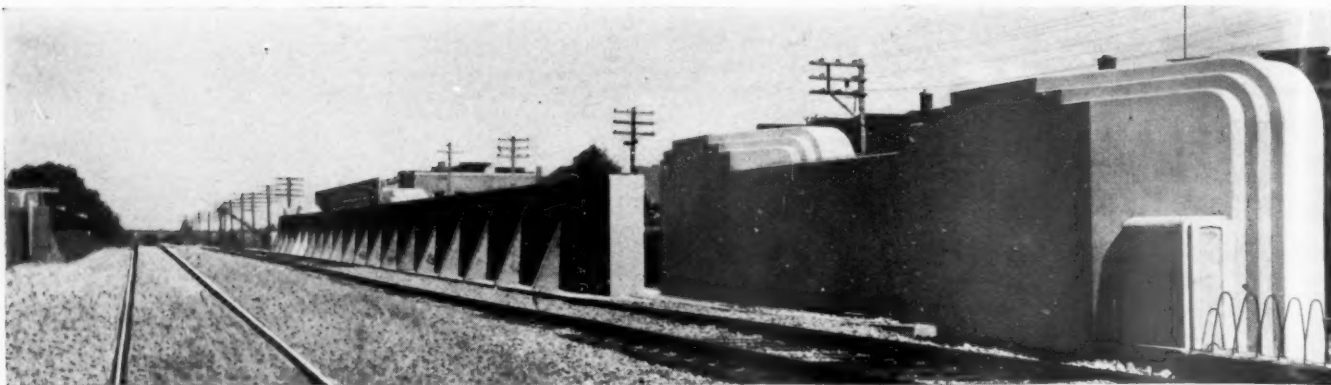
Practically throughout, Douglas fir plywood, ½ in. thick, was used for forms, this material minimizing form marks and lending itself readily to fabrication for the special architectural treatment employed. Following the removing of the forms, all exposed concrete was rubbed to produce a smooth, uniform and weather-resisting surface. This added materially to the cost of the work, especially that involving the balustrades, but was considered justified because of the prominence of the structure on one of the city's most important thoroughfares.

#### Offset Roadway Grades

Another interesting and effective feature of the project is that, taking advantage of the sharp skew of the long overhead bridge involved, with the span over one roadway deeply offset from the square with the other, the grades of the two roadways were considered independently, each being controlled primarily by the limitation of a 14-ft. minimum clearance beneath the bridge, and limiting grades of 5 per cent. Thus, like the near points of the separate steel spans over the roadways as one approaches the undercrossing, the low points in the opposite roadways are offset approximately 110 ft., with the two grades crossing about midway the length of the bridge.

This arrangement materially reduced the grading for the underpass, minimized property damages, and, of considerable importance, simplified the problem of the intersection of the three lateral streets with Broadway within the limits of the project. Under the plan adopted, both Lorain street and Waterworks drive were brought to an intersection with Broadway on easy grades, and Broadway place was continued along the north side of the underpass cut on a short section of high-level marginal driveway, sustained by a retaining wall, and brought into Broadway at the point of intersection of Lorain street.

An added expense resulting from the two levels in



At the Track Level, Showing the Rear of One of the Abutment Portals

Broadway beneath the bridge was the necessity for providing a dividing wall between them for a distance of 220 ft. or more each way from the center pier of the bridge, but advantage was taken of this to provide a pleasing concrete wall with a surmounting concrete balustrade, which not only effects the safety feature intended, but also adds materially to the appearance of the layout as a whole.

An interesting auxiliary feature of the grade separation work at Broadway was the internal reinforcing of the 72-in. concrete city water conduit which lay beneath the street. This conduit, unreinforced within itself and 30 years old, lay as close as 8 ft. to the near edge of the center pier footing, and its cover was reduced to as little as  $4\frac{1}{2}$  ft. by the pier and roadway excavations.

The problem of protecting this conduit against damage, either from shocks from without or from pressures from within, was the first work undertaken in the grade separation project, and involved lining it with steel segmental plates through a distance of 500 ft., backfilled with quick-setting cement grout. The lining employed was built up in 10-ft. sections, each section being made up of four No. 8 gage Toncan plates, with lapped and bolted seams and bolted connections at the ends into couplings or joints made up of curved channel sections. All seams and end joints were fitted with gaskets to make them tight against leakage of the grout as placed.

The work within the conduit was carried out during three nights a week, between 11 p. m. and 4 a. m. when the water could be turned off. Passing all material through a manhole opened into the conduit, the lining was built up section by section in the following sequence. First the channel splices, in two parts, were fixed in place. Then the lowest liner plate was laid in the invert of the conduit and bolted in position, following which grout was poured beneath it. This completed, the two side plates of the lining were put in position, the joints made tight, and grout poured behind them part way their depth. The closure plate over the top was then fixed in place, and through a hole provided in it the back-grouting was completed by pumping the grout into place. To complete the 500-ft. length of lining required 44 working sessions and cost approximately \$20,000.

There was little unusual about the methods employed in the actual grade separation work, this being carried out while traffic was detoured over a temporary track built along the north side. The roadway excavation, all of which was in clay of one variety or another, was done with power shovels and dump trucks, except for such clamshell work as was necessary in excavating for the substructure footings. This combined grading amounted to approximately 25,000 cu. yd. All concrete, amounting

to 4,150 cu. yd., was mixed at the site in portable mixers, and where it could not be chuted directly into place as in the footings, it was placed by a trimmie handled by a crawler-mounted crane.

The Broadway grade separation was a WPG project, with all costs paid from federal funds, except property damages, which were shared equally by the Wabash and the city. The project was constructed by the Ohio State Department of Highways under the general supervision of J. R. Burkey, chief engineer of bridges and railroad crossings. N. F. Durant was project engineer for the state. Bridge plans for the project were prepared by the engineering department of the Wabash, under the direction of J. C. Bousfield, chief engineer, C. S. Johnson, bridge engineer, and D. E. Brummitt, designing engineer. The conduit lining work was carried out by the Toledo water department under the direction of W. G. Clark, consulting engineer of the department. Wabash supervision of the work was handled by Wm. J. Hedley, construction engineer, and Thomas E. Quinn, resident engineer. The general contractor on the work was G. L. LaBoiteaux, of Toledo, while the steel work was handled under a sub-contract by the Bethlehem Steel Company.

## Railroads at Golden Gate Fair

(Continued from page 690)

oils, the conventional sort of paint customarily applied, the other is fluorescent paint, which sparkles with life and animation in the rays of invisible light. The "oil" story shows William F. Harnden, attired in the habiliments of 1839, complete with plug hat and a sizable carpet bag, just alighting from the old Boston & Providence train to inaugurate the country's first express service. Over this canvas another scene is applied with fluorescent paint, and as the normal light dims and slowly fades out, just as gradually and with increasing brilliance, there comes to life from across the intervening "century" the picture of San Francisco and the Bay Bridge, against the background of a portion of the globe. In the foreground is a 1939 streamlined train with its express cars and the latest in fast delivery trucks.

Another arresting display in this exhibit is that showing the operation of the Air Express Division of the Railway Express Agency. It shows air routes, both nationally and internationally, on a world map, in the center of which is the United States. Still another striking display is an electrical map of the United States, with the capital city of each commonwealth spotted in disks, designed for operation by the public.



## Would Wipe Out Entire Equity of C. & N. W.

WASHINGTON, D. C.

**F**OLLOWING the now fairly-well-defined tradition that common and preferred stockholders of the old company shall take no part in the allocation of securities of the reorganized railroad corporation Examiner J. V. Walsh submitted to the Interstate Commerce Commission on April 18 a plan of reorganization which would eliminate all equity holdings in the Chicago & North Western and drastically reduce the capitalization and the fixed charges. Under the proposed plan the total capitalization of the new company would be placed at \$449,998,270 as compared with \$553,157,265 as of January 1, 1938. Fixed interest charges would amount to \$3,394,987 as compared with \$13,779,320 for the five year period 1926 to 1930.

At the same time the commission announced that the case would be assigned for oral argument before the full commission on June 29. Exceptions to the proposed report must be filed by May 29, and replies to the exceptions are due not later than June 19.

The new capitalization of the Chicago & North Wes-

tern, including \$13,100,000 of four per cent first and general mortgage bonds reserved for a rehabilitation and improvement program, would consist of \$11,678,000 of equipment trust obligations and a Public Works Administration four per cent loan of \$1,020,000, both of which would remain undisturbed; \$4,548,000 of four per cent Sioux City divisional mortgage bonds; \$2,932,500 of four per cent Des Plaines divisional mortgage bonds; approximately \$663,000 of four per cent notes to the Railroad Credit Corporation; approximately \$3,118,000 of 2½ per cent and 1½ per cent bank notes; \$25,000,000 of 2½ per cent and 1½ per cent notes to the Reconstruction Finance Corporation; \$54,888,074 of 2½ per cent and 1½ per cent first and general mortgage bonds; \$105,058,904 of 4½ per cent second mortgage income bonds; \$106,996,076 of five per cent preferred stock and \$120,995,716 of no par common stock.

Fixed interest charges on this capital structure would amount to \$3,394,987 and contingent interest charges would be \$5,972,742. This, according to the examiner, is on the assumption that the bonds reserved to finance a rehabilitation and improvement program may be sold on a four per cent basis. He went on to point out that it should be provided that this rate may be increased to six per cent, if necessary.

(Continued on page 706)

## What Will the Traffic Bear?—10

Trucks are hauling scrap iron from Kansas City to St. Louis, a distance of 255 miles by highway, for 17 cents per 100 pounds—less than half the unit cost of truck service. The minimum weight they will handle is 18,000 lb. The railroad rate is 17½ cents per 100 lb., minimum weight, 50,000 lb. The truck rate is actually lower for an 18,000-lb. minimum than the rail rate for a 50,000-lb. minimum.

How do the trucks manage profitably to handle this traffic? It is very simple arithmetic. They hand-pick a truckload of high rated traffic from St. Louis to Kansas City, which nets them \$184 per truckload. This, added to the \$34 received for the return-load of scrap iron gives gross of \$218 for the round-trip, which costs approximately \$150 to make.

The west-bound class rates are:

|                    | Rail<br>Cents | Truck<br>Cents |
|--------------------|---------------|----------------|
| First Class .....  | 101           | 92             |
| Third Class .....  | 70            | 64             |
| Fourth Class ..... | 56            | 51             |

In addition to the inflation in the rail rate structure, which permits the trucks to hand-pick high rated traffic, the railroads do not pretend to meet the truck rates, even on scrap iron.

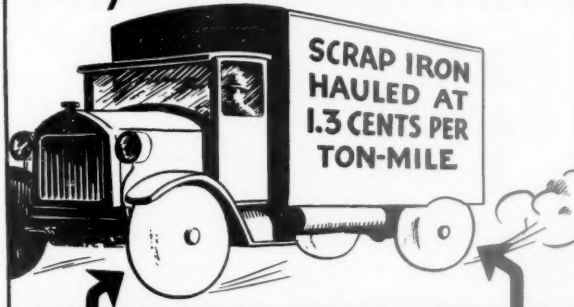
If the railroads would apply a weighted average rate on class rate traffic, which approximates third class, to this merchandise movement, the trucks would not average more than \$145 for a St. Louis-Kansas City trip—and this would be less than their cost of operation. This clearly demonstrates that the preponderance of merchandise loadings are in one direction and that the trucks are hard-pressed to obtain return loads. Even when they haul this low grade traffic they return empty at least half the time. Quite plainly, if truck revenue were

reduced from \$218 to \$145 for a St. Louis-Kansas City round-trip, most if not all trucks would have to withdraw from this service.

Such an average method of pricing by the railroads, extended to all distances, would force the trucks completely out of the long-haul business, and would recover for the railroads much of the short-haul traffic which is now moving by truck.

The railroads could further revise their prices so as more nearly to reflect the cost of producing

### Deflate the Tires and the Scrap Iron Would Not Move



**FREIGHT PAYING 7¢ PER TON-MILE**

short-haul service such as that between St. Louis and Kansas City, and make it even more difficult for the trucks to participate in much of this traffic.

They would also be justified in insisting that the regulatory commissions invoke their minimum rate-making powers, prescribing truck minima which will reflect not less than actual truck costs, and thus declare the trucks out of this low-grade movement.



# Senate Committee Hears Eastman

Railway Business Association and Railway Express Agency also heard in closing sessions on Wheeler-Truman "key bill"

WASHINGTON, D. C.

**S**ENATE interstate commerce committee hearings on S. 2009, the "key bill" of the Wheeler-Truman program for transportation legislation, were concluded last week with the testimony of Interstate Commerce Commissioner Joseph B. Eastman, chairman of the commission's legislative committee, and presentations on behalf of the Railway Business Association and the Railway Express Agency. The final session on S. 2009 was held on April 14 after which the committee recessed, setting April 24 as the tentative date for resumption of the hearings to take up the remaining three bills on the schedule.

The latter are: S. 1869, which would amend the law relating to railroad reorganizations; S. 1310, which would give the Interstate Commerce Commission regulatory authority over the so-called "outside investments" of railroads; and S. 2016, the holding company bill. Also, as Chairman Wheeler ruled at the outset, the hearings will be broad enough to receive presentations on other pending measures dealing in one way or another with matters covered in the committee-of-six recommendations.

Commissioner Eastman said that part of his presentation would cover the views of the I. C. C. while the remainder would embrace his own opinions only. In the former connection he first called attention to the report which he made as chairman of the commission's legislative committee to the House committee on interstate and foreign commerce, as noted in the *Railway Age* of March 25, page 522. The former co-ordinator also revealed that the commission has since submitted two additional reports to the House committee—one dealing with the need for the regulation of forwarders and another discussing the question of regulating private transportation. Meanwhile the commission is preparing for the Senate committee a report on S. 2009; and until that job is completed Mr. Eastman said he would speak only for himself with respect to those provisions of S. 2009 which were not covered in the committee-of-six recommendations. He was, however, able to give the view of the commission on provisions dealing with committee-of-six recommendations because the regulatory body passed upon such recommendations in its above-mentioned report to the House committee.

## Eastman on S. 2009's "Major Objectives"

As Mr. Eastman saw it the major objectives of S. 2009, so far as implementing the committee-of-six recommendations is concerned, are the declaration of policy, the regulation of water carriers, the change in the consolidation provisions, the investigations of the relative economy of the various transport agencies and of subsidies, and the provision to require that any division of I. C. C. work be along "functional" lines. The commission, he said, has no objection to S. 2009's declaration of policy, which it thinks is "well stated." With respect to the regulation of water carriers by the I. C. C., Commissioner Eastman said that the commission has always favored the regulation of all important trans-

port agencies by the same federal body. He went on to say that he recently found in the I. C. C.'s second annual report, issued in 1888, a recommendation that water carriers be brought under the same regulation as the railroads for the reason, among others, that it would be beneficial to the boat lines themselves. He added that the latter was "perhaps true" in view of "what has happened to the water carriers since 1888."

The former co-ordinator next recalled how the I. C. C. continued in each annual report until the latest one to recommend that it be given jurisdiction over water carriers. It dropped the recommendation last year because of a feeling that two actions of Congress may have indicated a disposition on the part of the legislators to follow a different policy. In this connection Mr. Eastman cited the elimination from the Merchant Marine Act of the provision which would have authorized the President to transfer the Maritime Commission's authority over interstate water carriers to the I. C. C.; and the Civil Aeronautics Act which set up the Civil Aeronautics Authority. However, the witness went on, the I. C. C. still thinks that it is the logical regulatory body for water carriers; although it believes it to be more important to correct the present set-up of divided and incomplete jurisdiction.

## Maritime Commission Duties "Inconsistent"

Here Chairman Wheeler observed, as he had previously, that the Maritime Commission's "principal" duties were concerned with promoting, operating, lending and subsidizing shipping, adding that such functions are "just inconsistent" with regulatory duties. "I don't care," he went on, "how good a commission is—it can't run that kind of a show without sooner or later bringing itself discredit." The chairman said he would not ask Mr. Eastman to comment on that, but the former co-ordinator was nevertheless willing. As a "general principle," he believes that regulatory and promotional duties in the same field should not be exercised by the same body; but he does not understand that the Maritime Commission's promotional duties deal with boats in interstate commerce. Chairman Wheeler understands that boats are shifted about from foreign to coastwise and inter-coastal services; and he would be "just as opposed" to having the I. C. C. making loans to railroads. Commissioner Eastman reminded the chairman that the I. C. C. has in the past made loans to railroads out of the post-1920 revolving fund; and it now passes on loans made by the R. F. C.

Directing the witness's attention to the expressed fears that the I. C. C. would relate water rates to rail rates, Senator Wheeler asked for Mr. Eastman's comment. The reply was a citation of similar fears expressed by highway operators in pre-Motor-Carrier-Act days, and an assurance that the commission has attempted to adhere to the Motor Carrier Act's declaration of policy just as it would endeavor to fix water rates on the basis of conditions in the water transport field. Mr. Eastman does not anticipate that the regulation of water

carriers will be of any great benefit to the railroads, but he thinks it would stabilize the water transport industry.

The former co-ordinator here listed, as he had for the House committee, alternatives which in his personal opinion might be adopted if the Congress does not want to enact S. 2009's water carrier provisions. The Congress might, he suggested, enlarge the regulatory authority of the Maritime Commission; or it might transfer the present regulatory powers of the Maritime Commission to the I. C. C. while at the same time giving the latter only such additional authority as would enable it to require water carriers to submit reports with information which could be made the basis of further regulatory legislation. "A year additional would perhaps be of no great importance," Mr. Eastman said in the latter connection.

S. 2009's consolidation provisions, the former co-ordinator said, meet with I. C. C. approval; although the regulatory body has other suggestions on the matter in connection with its proposed Transportation Authority for planning and promotional purposes, including "planning and promotion of consolidations."

Coming to the section which directs the I. C. C. to make the subsidy study which the committee-of-six would assign to its proposed Transportation Board Commissioner Eastman again talked about his own long-promised report on government aids to transport agencies. The report, he explained, is "almost finished." It will be a five-part or five-volume report, consisting of a summary volume and others dealing separately with government aids to railroads, water carriers, highway transport and air transport. All will be issued at one time; and the present status is that the railroad report is in print, the water carrier report is being printed, the highway transport report is three-fourths in type while a couple of chapters are as yet incomplete, and the air transport report is not yet completed.

#### A Seven-Billion Dollar Difference of Opinion

In connection with these reports, Commissioner Eastman again predicted, as he had before the House committee, that they won't "settle the question;" and he agreed with Chairman Wheeler that all interests could not be satisfied "whoever makes the report." The former co-ordinator went on to cite the big difference of opinion between his staff and the railroads with respect to the amount of highway costs which should be borne by the general taxpayer. This difference, he revealed, amounted (capitalized) to some seven billion dollars.

Addressing himself to the contention that regulation of other agencies of transport would tend to give the railroads a monopoly, Chairman Wheeler stated it to be his view that the ability of individuals to provide their own transportation means that "the day of monopoly for the railroads is over, and they've got to face that fact." Commissioner Eastman agreed that the cost of operating private vehicles "sets the ceilings;" and Senator Shipstead, Farmer-Laborite of Minnesota, asked if it would be in the public interest to control private transportation in order to protect the railroads. The witness said that the commission undertook to discuss that question in one of its above-mentioned supplemental reports to the House committee, adding that private transportation could perhaps be regulated only on the theory that such regulation was necessary to protect existing common-carriers deemed to be required in the public interest.

The witness also told Senator Shipstead that S. 2009

carried no relief for the railroads except such as might come as a result of water-carrier regulation; although he thought the committee-of-six must have expected some benefits from the proposed investigations of subsidies and of the relative economy and fitness of the various transport agencies. The commission favors the latter investigation which Mr. Eastman called a probe of "transportation integration;" although it doesn't think S. 2009's provisions go far enough. In other words it wants the Transportation Authority to follow through and see that some integrating is done. The commission, the witness said, does not favor the provision which would require all of its divisions to be along "functional" lines. Mr. Eastman conceded in this connection that perhaps a rate division should deal with all agencies, but he listed other matters which he thinks are better handled departmentally. Thus he wants no statutory directions which would destroy "flexibility." He pointed out that no division ever has final say—there is always the right of appeal to the full commission. Later Mr. Eastman said that the railroads have no reason to object to what Division 5 has done with respect to motor carrier rates—the criticism has come from shippers who think the commission has gone too far in fixing minimum motor rates on the rail basis.

#### Wheeler and Eastman Argue on Codification

Coming to the question of codification of the transportation regulatory laws, which S. 2009 undertakes to do, Mr. Eastman spelled out five or six specific objections to the process which he had told the House committee was "really a stupid performance" on the part of committee-of-six counsel. Every "major objective" can be accomplished without codification, Mr. Eastman said, adding that there has been no demand for codification; that any such rewriting should be done by a public body after it had heard all interested parties; that in his opinion it is better to have separate laws to regulate rail, water and motor carriers; and that codification won't benefit the railroads while it will be troublesome to motor carriers.

Chairman Wheeler said that he assumed the committee shouldn't ever disagree with the I. C. C., adding, however, that it does occasionally, and it is the function of Congress to determine policy. Commissioner Eastman agreed heartily with the latter, and said the "public body" he mentioned wouldn't necessarily have to be the I. C. C. Senator Wheeler said he recognized that there may be "some sensitiveness" about the matter; but Mr. Eastman said "Not in the least, on our part." The former co-ordinator added that he was talking only about "procedure" and he doesn't think it "proper procedure" to undertake such an important job as codification unless the initial work is done by a body representing the public, so that all concerned can have full notice of what's proposed. Chairman Wheeler suggested that if the witness' view were the correct one, there never would be any legislation, because interests for which regulation is proposed never do admit having time to study the proposals.

"But," Mr. Eastman protested, "No emergency requires it."

"That's your opinion," said Chairman Wheeler.

"That's all I'm giving you to accept or reject at your pleasure," the witness replied.

"That's what we'll do," was the comeback of the chairman, who went on (after Senator Reed had expressed agreement with the Eastman opposition to codification) to point out that the codification recommendation came from a committee appointed by the President.



Conceding that he might have done differently if he were initiating the legislation himself, Senator Wheeler said he had agreed to introduce legislation designed to implement parts of the committee-of-six recommendations; and he was offering such legislation to Congress in a codified bill as the President's committee desired it.

Commissioner Eastman nevertheless continued to argue against codification, reading from a prepared statement which listed several examples of changes which, he said, codification makes in the Motor Carrier Act. He said he was making no attempt to cite all such changes, and conceded that it would be possible to make a careful check of S. 2009 and adjust the matters about which he was talking; but "it's not necessary," if the codification idea were abandoned. "Well, as I said before," said Senator Wheeler, "that's where you and I disagree."

Among other things Commissioner Eastman discussed what he regarded as difficulties of putting the motor carriers at the "present early stage of their regulation and development" under the long-and-short-haul clause, the provision giving the shipper the right to route and the reparations provisions. Also, he thought that the application of a single rate-making rule to all agencies might leave its meaning "obscure." For example, he went on, the language "the effect of the rates on the movement of traffic" might raise a "What traffic?" question in a case which involved the rates of more than one transport agency. Chairman Wheeler couldn't see it, and Mr. Eastman said that the general rule would not be obscure to him; but he suggested that some lawyers might try to do a bit of playing around with it. Senator Reed expressed the view that the rate-making rule could be wiped out entirely without the loss of anything vital to the regulatory law. Later the Kansan said he had found no "serious intention" on either side of Congress to include "in any bill which gets serious consideration" a rate-making rule as proposed by the committee-of-six. Commissioner Eastman agreed, at Senator Shipstead's suggestion, to prepare amendments which would eliminate the "obscurity" from S. 2009's rate-making rule, which is the same as that in the present Interstate Commerce Act except for the application to all agencies of transport.

The Minnesota senator then asked when the I. C. C. report on S. 2009 would be completed, and Commissioner Eastman expressed the hope that it would be in the hands of the committee by the end of this week. He went on to say that he did not recall a session of Congress wherein the commission had a more difficult legislative situation to handle, because of the "voluminous" bills on which the I. C. C. reports have had to be "voluminous." Mr. Shipstead then wanted to know whether the I. C. C. were consulted on the drafting of S. 2009. Commissioner Eastman explained that the commission, as he understood the situation, loaned one of its counsel to the committee; and while the former co-ordinator has a "high regard" for the attorney thus loaned, the latter, the witness went on to say, "hasn't been in very close contact with the motor carrier end of our work."

Commissioner Eastman closed with arguments in favor of giving the I. C. C. power to require pooling, and for the creation of a Transportation Authority as proposed in the report of the Splawn-Eastman-Mahaffie committee. The former co-ordinator doesn't think the latter proposal is "well understood;" he personally regards it as the one which offers the most benefit to transportation—if it is carried out in the proper manner. The body dealing with transport planning and promotion, as he sees it, should do more than "mere research"—it

should be a "continuing adviser to the President and Congress."

#### R. B. A. and R. E. A. Make Brief Presentations

The presentation on behalf of the Railway Business Association was made by Dr. L. C. Sorrell, who was given five minutes to highlight a statement which he put into the record. The R. B. A., Dr. Sorrell said, expects to make a more detailed presentation with respect to other Wheeler-Truman bills—a presentation which will advocate, among other things, giving the I. C. C. power to require consolidations. In this connection the Association "very decidedly" believes that the United States should move into an era of "promotion of consolidation."

Meanwhile the witness had expressed R. B. A.'s approval of two aspects of S. 2009—the equality of regulation, and the unification of all regulation under the I. C. C. As regards codification it has had "some doubts" as to the possibility of effecting a proper rewriting in the time available. To S. 2009's declaration of policy the R. B. A. would add the words: "To encourage and promote continued private ownership and operation."

The Railway Express Agency also got five minutes for Vice-President A. M. Hartung's highlighting of a statement which was included in the record. Mr. Hartung argued for regulation of R. E. A. as to all its operations as an express company under Part I of the Interstate Commerce Act. He pointed out that pick-up and delivery operations have been an essential part of the express business since its inception 100 years ago; also, the rates are the same whatever mode of conveyance is used. Furthermore R. E. A. is subject to the Railway Labor Act, the Railroad Pension Act, the Carriers' Taxing Act and the Railroad Unemployment Insurance Act.

Specifically Mr. Hartung offered a suggested amendment which would exempt from regulation as highway services, the motor operations of the Express Agency performed in terminal and transfer service and those incidental to through highway service. R. E. A. does not want to be divided for regulatory purposes into a carrier by railroad, by motor vehicle, by water and by air. Mr. Hartung also suggested a change in S. 2009's definition of an express company, which he said would insure confining the term "to what is now generally understood to be an express company, as defined by the courts and the Interstate Commerce Commission."

\* \* \*



Photo by R. H. Kindig

Denver & Rio Grande Western Locomotive No. 1800 Leaves Palmer Lake, Colo., at the Head of the Scenic Limited



# What Horsepower for 1,000-Ton Passenger Trains?\*

Report of the Mechanical Division tests to determine the maximum drawbar horsepower required at 100 m. p. h. on level tangent track

**A**T a meeting of the General Committee of the Mechanical Division of the Association of American Railroads in June, 1938, the Committee on Further Development of the Reciprocating Steam Locomotive presented a progress report. The latter committee was then instructed to prepare plans and was subsequently authorized to conduct a series of road tests to determine the drawbar horsepower required to haul a 1,000-ton train at a constant speed of 100 m. p. h. on level tangent track.

In October, 1938, a 16-car test train was assembled and tests were conducted on the Pennsylvania, the Chicago & North Western, and the Union Pacific. The train, which was assembled by the Pennsylvania from its own rolling stock, consisted of 14 P70 coaches, a B60b baggage car, and a dynamometer car. The dynamometer car and the baggage car both had 5½-in. by 10-in. journals and single brake shoes, and the 14 P70 coaches had 5½-in. by 11-in. journals and clasp brakes. All cars were carried on four-wheel trucks. The baggage car

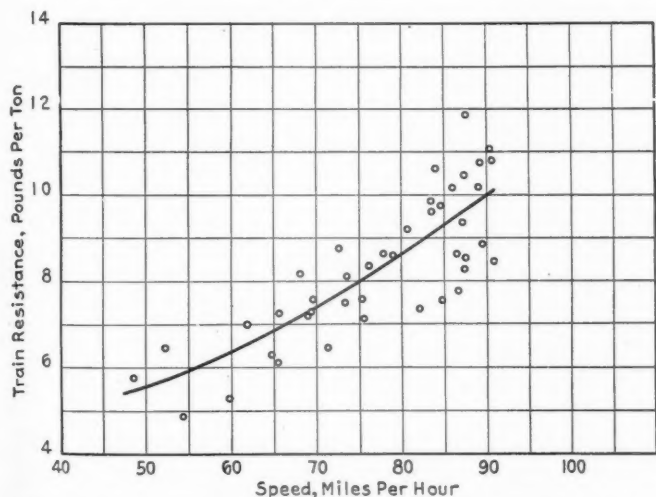


Fig. 1—Train-Resistance as Determined on the Pennsylvania—Passenger Cars with Four-Wheel Trucks—Average Weight per Car 62.82 Tons

weighed 44 tons; the other cars varied from 63 to 64.85 tons; the total weight of the train was 1,005.2 tons, and the average weight per car was 62.82 tons.

Six different locomotives were used on the round trip from Fort Wayne, Ind., to Grand Island, Neb. On the Pennsylvania, the locomotives used were Class K4s Pacifics; on the C. & N. W., Class E4 4-6-4 type built during 1938, and on the Union Pacific, Class FEF1, 4-8-4 type, built in 1937.

\* Abstract of the report of the A. A. R. Passenger Locomotive Tests, October, 1938, issued by the office of the Mechanical Engineer of the Mechanical Division, February, 1939.

The test train was operated through Indiana, Illinois, Iowa, and part of Nebraska, and the total miles run, east-bound and westbound, was 1,560. In the first three named states the gradient was rolling, while in Nebraska there was a continuous ascending grade westbound. The maximum grade on any railroad was 1.25 per cent. The

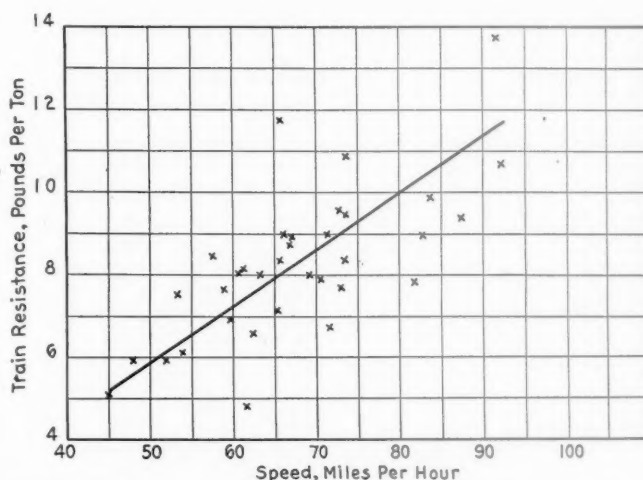


Fig. 2—The Train-Resistance Measurements on the Chicago & North Western — Passenger Cars with Four-Wheel Trucks — Average Weight per Car 62.82 Tons

rail weight on the Pennsylvania was 131 lb. per yd., and on the other railroads, in general, 100 lb. per yd. A short stretch of the Union Pacific was laid with 110-lb. rail. The ballast on the Pennsylvania was crushed limestone; on the Chicago & North Western, cinder, gravel,

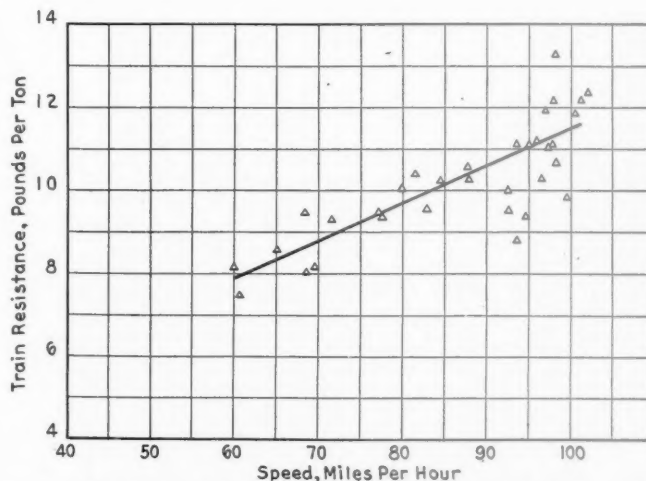


Fig. 3—The Union Pacific Train-Resistance Curve—Passenger Cars with Four-Wheel Trucks—Average Weight per Car 62.82 Tons

stone, and crushed rod. On the Union Pacific, the ballast was gravel from Sherman, Wyo. A few miles were ballasted with sand, cinders, or slag.

A report of the results of the tests follows.

### Train Resistance on Level Tangent Track

Over several stretches during each of the test runs the train resistance was carefully computed from the dynamometer car records and corrected for grade and accelera-

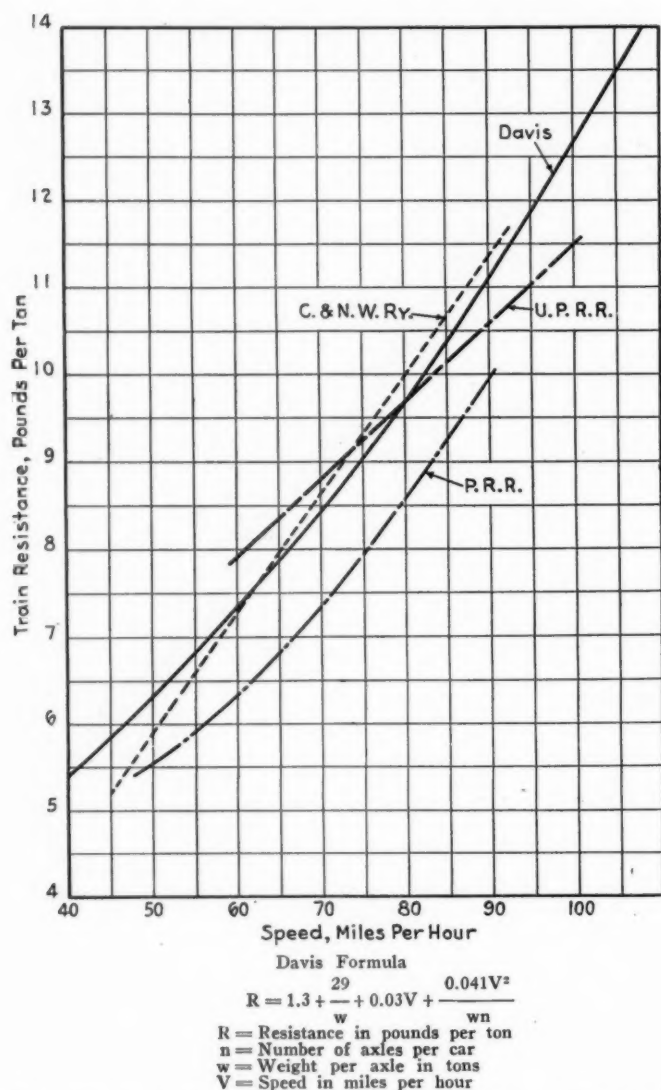


Fig. 4—The Three Train-Resistance Curves Compared with the Davis Curve

tion, to determine the train resistance in pounds per ton, on level tangent track.

The resistance in pounds per ton, over the test stretches, has been plotted separately for each railroad on Figs. 1, 2 and 3, and average curves have been drawn through the points.

In Fig. 4 the resistance curves for each railroad are shown, together with a curve based on the Davis formula. Although the identical train with the same dynamometer car and crew was used on all three railroads, the resistance varied considerably, and the only explanation may be the difference in track structure.

The tests were run in moderately warm weather, with low wind velocity, and, therefore, any resistance curve that is to be used by the designer or operating officer should be selected with due regard for weather condi-

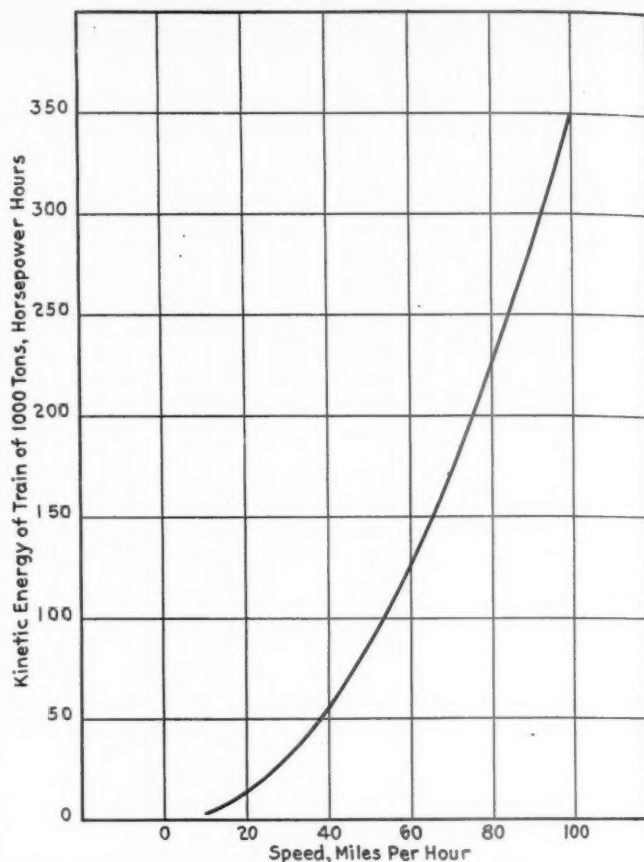


Fig. 5—The Kinetic Energy Stored in a 1,000-Ton Train at Various Speeds

tions. With this consideration in mind, the curve based on the Davis formula is as representative of the test data as any other that could be drawn.

### Test Rates of Acceleration

The Davis curve in Fig. 4 shows that the resistance of the test train on level tangent track at a speed of 100 m. p. h. is 12.67 lb. per ton and, therefore, to haul the test train weighing 1,000 tons at a speed of 100 m. p. h. on level tangent track will require a drawbar pull of 12,670 lb. and a horsepower of 3,379 delivered at the rear of the tender. This is a comparatively moderate power; but, if a train is to run at 100 m. p. h., it must first be accelerated up to that speed and the rate of acceleration will depend upon the amount of power that can be delivered by the locomotive in excess of that re-

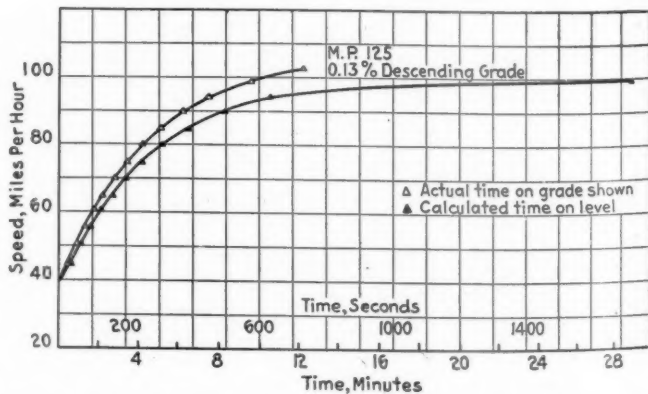


Fig. 6—Speed-Time Curve of the Union Pacific 4-8-4 Type Locomotive Hauling the Test Train

quired to haul the train at a constant speed. The kinetic energy of the train, which must be supplied by this excess power, varies as the square of the speed, as shown by the curve in Fig. 5.

In conducting the high-speed tests, as the maximum speed was approached, the great time and distance required to make a small increase in speed became very noticeable. The highest speed of the tests was made on the Union Pacific, and the acceleration curve shown in Fig. 6 shows that it required 7 min. to accelerate from 80 to 100 m. p. h., although the train was on a descending grade of 0.13 per cent. On the same diagram is another curve showing how the speed would have increased if the grade had been level. It would then have required 16 min. 10 sec. to reach a speed of 99 m. p. h. and no higher speed could have been obtained unless the loco-

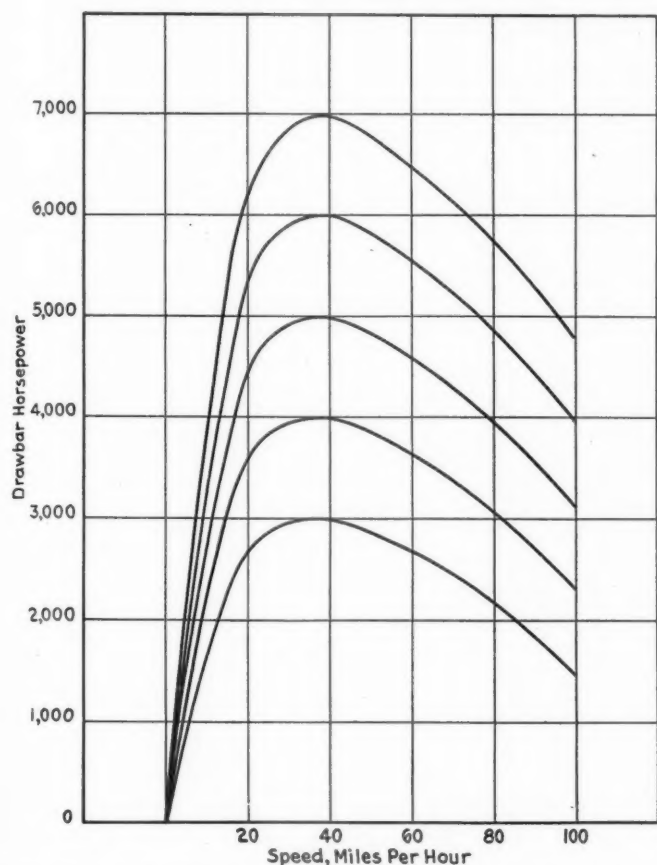


Fig. 7—Calculated Drawbar-Horsepower-Speed Curves for Locomotives Developing 3,000 to 7,000 Drawbar Horsepower

motive could develop more horsepower than it did in the test.

### Calculated Rate of Acceleration

After the running resistance has been determined, the time and distance required to accelerate a train can be calculated for any given drawbar horsepower, but since the mass of the locomotive and tender must also be accelerated, their weight must be known or assumed and taken into account.

To be able to plot a series of acceleration curves approximating actual conditions with existing steam locomotives, a series of drawbar-horsepower-speed curves have been plotted in Fig. 7 for locomotives developing maximum drawbar horsepowers of 3,000 to 7,000. These curves were developed from the Cole formula which as-

sumes that the indicated horsepower remains constant above a piston speed of 1,000 ft. per min. From each curve 25 lb. per ton of estimated weight on drivers was deducted from the cylinder tractive force in accordance with American Locomotive Company practice to get the horsepower developed at the drivers, after which the resistance of the engine, trailer, and tender trucks, and the head-end air resistance was calculated by the Davis

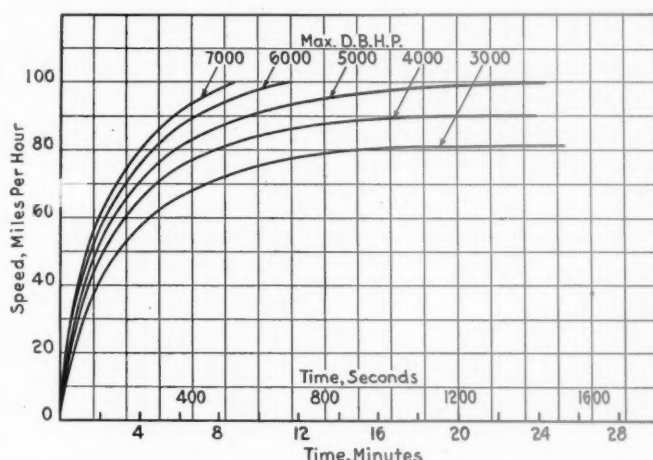


Fig. 8—Speed-Time Curves for a 1,000-Ton Train (Trailing Load) on Level Tangent Track, with Drawbar Horsepowers from 3,000 to 7,000

formula and deducted to determine the horsepower delivered at the rear of the tender. The curves in Fig. 7 do not represent actual locomotives, but they will serve to show the relation between power and rate of acceleration and closely represent what is now attained in actual practice.

Acceleration curves, based on these calculated horsepower curves, are shown in Figs. 8 and 9.

With a maximum of 5,000 drawbar horsepower, it requires only 0.93 miles to accelerate to 50 m. p. h., an-

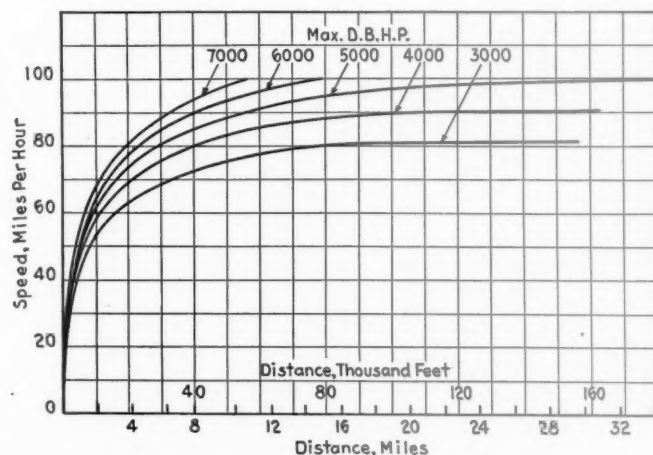


Fig. 9—Speed-Distance Curves for a 1,000-Ton Train (Trailing Load) on Level Tangent Track, with Drawbar Horsepowers from 3,000 to 7,000

other 4.4 miles to accelerate to 80 m. p. h., and 29.0 additional miles to accelerate to 100 m. p. h. In other words, if after reaching a speed of 100 m. p. h. the train were required to slow down to 80 m. p. h., it would require 29.0 miles on level track to get back to 100 m. p. h. It is evident that if much running is to be done at a



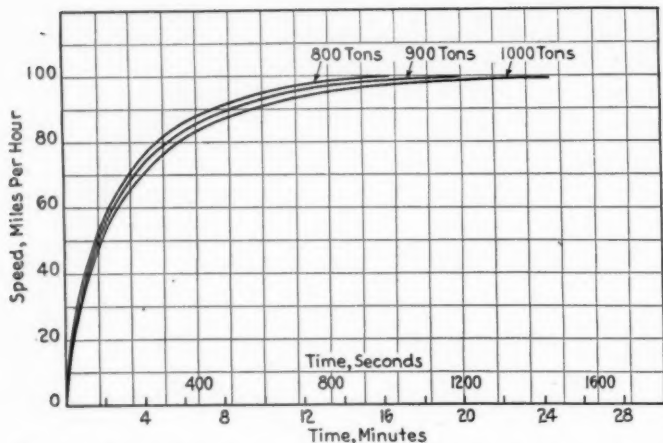


Fig. 10—Speed-Time Curves for Various Trailing Loads on Level Tangent Track, Hauled by a Locomotive Developing 5,000 Maximum Drawbar Horsepower

speed of 100 m. p. h., the rate of acceleration will have to be much faster than this, and a locomotive developing a maximum of only 5,000 hp. will not be large enough if its horsepower-speed curve is similar to that in Fig. 7.

Reference to Fig. 9 shows that it takes longer to accelerate from 80 to 100 m. p. h. than it does to accelerate from 0 to 80 m. p. h. The difference in acceleration, time and distance, is much greater at the higher speeds than it is at the lower speeds. The curves in Fig. 8 make it clear that when the drawbar horsepower decreases at the higher speeds, the time required to accelerate at these higher speeds is lengthened, and to make high-speed running practicable it is important to increase the maximum cylinder horsepower developed by the locomotive to overcome mechanical friction to sustain maximum drawbar horsepower at higher speeds.

#### Effect of Grade on Acceleration

All the curves so far discussed have been based on running on level tangent track. Running downhill will, of course, increase the rate of acceleration, and running uphill will decrease the rate. On a 0.1 per cent ascending grade, a 5,000-drawbar-horsepower locomotive will not accelerate the 1,000-ton train beyond a speed of 92 m. p. h. Even on a 0.3 per cent descending grade it will require about 5.65 miles to accelerate the train from 80 to 100 m. p. h.

If the power delivered by the locomotive cannot be in-

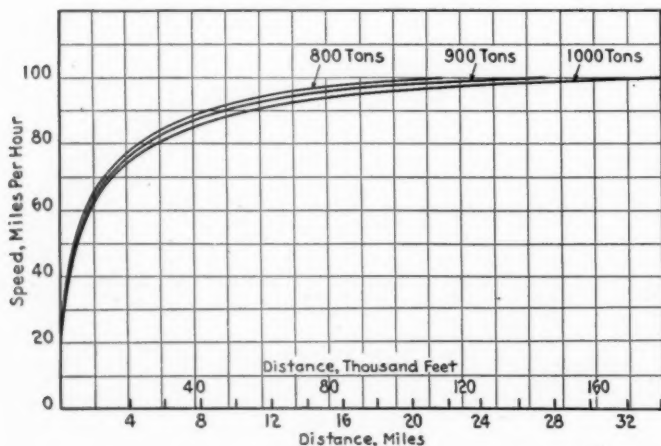


Fig. 11—Speed-Distance Curves for Various Trailing Loads on Level Tangent Track, Hauled by a Locomotive Developing 5,000 Maximum Drawbar Horsepower

creased enough to produce a satisfactory rate of acceleration, the time and distance required to reach high speed can be shortened by decreasing the weight of the train. The time and distance required to accelerate trains of three different weights have been plotted in Figs. 10 and 11, basing them on a locomotive developing a maximum of 5,000 drawbar horsepower. Reducing the weight

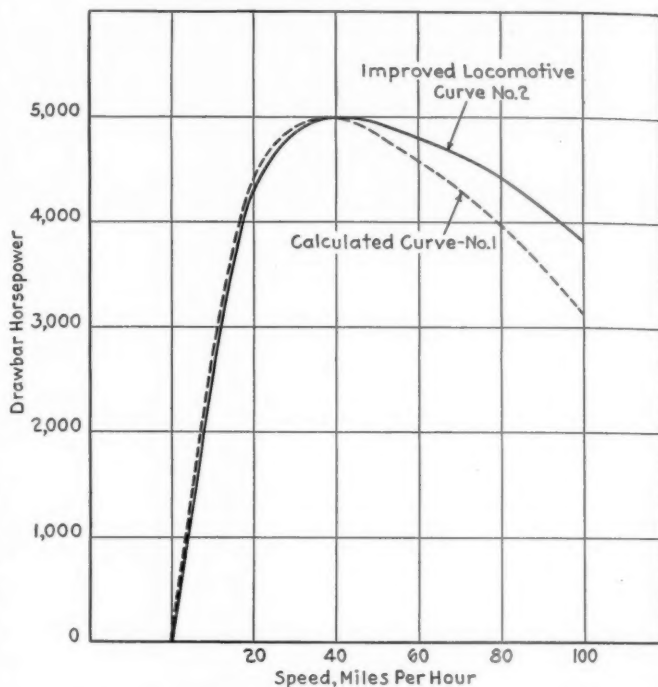


Fig. 12—Comparison of Calculated and "Improved" Drawbar-Horsepower-Speed Curves—5,000 Maximum Drawbar Horsepower

of the train from 1,000 tons to 800 tons reduces the time and distance required to accelerate from 0 to 100 m. p. h. about 35 per cent. This is a very important gain. There is, however, another way to look at it. The curves also show that when the 800-ton train has reached a speed of 100 m. p. h., a 1,000-ton train will have reached a

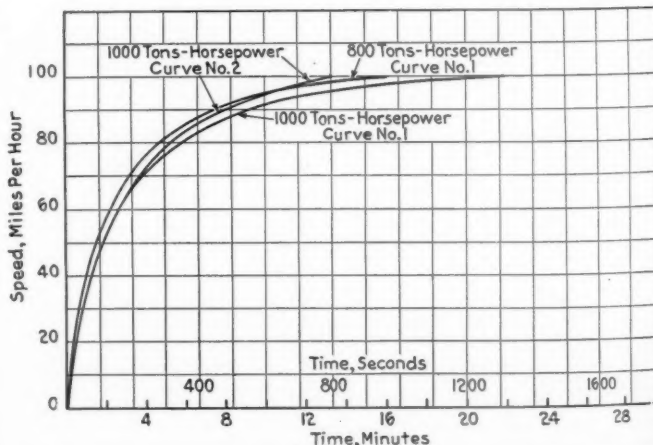


Fig. 13—Comparison of Speed-Time Curves for Standard-Weight and Lightweight Trains Hauled by Locomotives with Calculated and "Improved" Drawbar-Horsepower Curves

speed of 97.5 m. p. h., a difference of only 2.5 m. p. h. in speed.

In order to find out how much additional power would be required to accelerate the 1,000-ton train at the same

rate as the 800-ton train, a new drawbar-horsepower curve was assumed for a 5,000-drawbar-horsepower locomotive. This curve is shown in Fig. 12 in comparison with the corresponding curve in Fig. 7. It represents a moderate improvement in the power developed at high speeds which it should be possible to secure. The resultant acceleration curves are shown in Figs. 13 and 14. The improved locomotive will accelerate the 1,000-ton train to 100 m. p. h. in slightly less time and distance

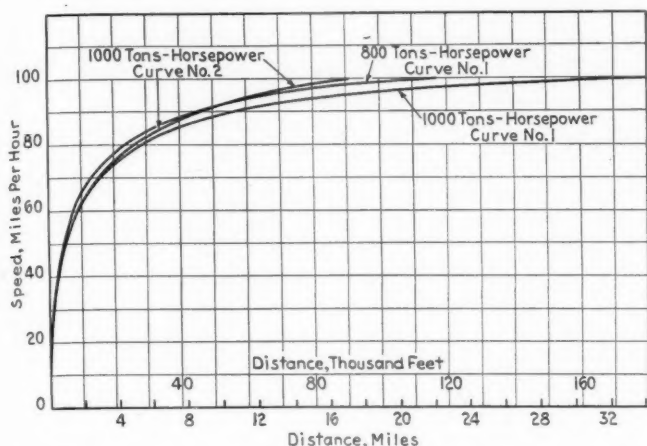


Fig. 14—Comparison of Speed-Distance Curves for Standard-Weight and Lightweight Trains Hauled by Locomotives with Calculated and "Improved" Drawbar-Horsepower Curves

than the 800-ton train will require when handled by the other locomotive. If long trains are to be handled at a speed of 100 m. p. h., undoubtedly there will be required a reduction in the weight of the train as well as an improvement in the power produced by the locomotive at high speed.

### Comments Developed from General Observations

Nothing developed in the tests to indicate that any of the locomotives had reached the limit of boiler capacity. Therefore, the question of sustained power at high speeds becomes a question of mean effective pressure in the cylinders. It is evident that if the mean effective pressure remains constant as the speed increases, the power of the

locomotives will increase with speed; but since the mean effective pressure for any given cycle of valve events necessarily decreases with the speed, the ideal locomotive must have port openings so large and so accurately timed that this decrease will be kept as low as possible until the maximum speed has been reached. Obviously, the mean effective pressure cannot be successfully sustained by lengthening the cut-off. On the other hand, high speeds should be accompanied by shortened cut-off. The factors of design which have a direct bearing on maximum mean effective pressure are as follows: (1) high boiler pressure; (2) minimum pressure drop from boiler to steam chest; (3) large steam chest volume; (4) maximum valve port openings, and (5) minimum back pressure in exhaust passages.

Other factors that effect the power delivered to the drawbar are machinery friction, rolling resistance, and head-end air resistance.

## Conclusions

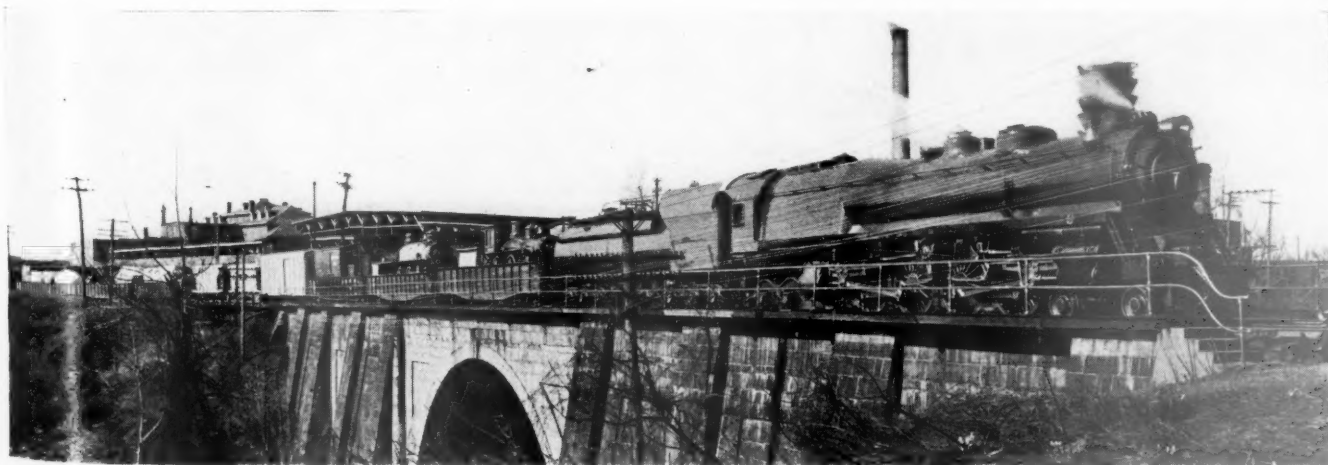
1. The maximum speed reached in the test was 102.4 m. p. h. After acceleration from a speed of 50 m. p. h. over a distance of 13 miles on a descending grade of 0.13 per cent, a speed of 100 m. p. h. was reached and maintained for 6 miles.

### Acceleration Distances for Various Horsepowers—1,000 Tons Trail- ing Load

| Maximum<br>drawbar<br>horsepower | Distance, miles, to accelerate between<br>speeds of, m. p. h. |       |        |
|----------------------------------|---|-------|--------|
|                                  | 0-50  | 50-80 | 80-100 |
| 3,000                            | 1.51  | 13.98 | .....  |
| 4,000                            | 1.13  | 6.36  | .....  |
| 5,000                            | 0.93  | 4.41  | 29.00  |
| 6,000                            | 0.80  | 3.48  | 10.74  |
| 7,000                            | 0.71  | 2.92  | 7.13   |

2. An estimate of the power required to haul passenger trains at high speed should be based on the Davis formula for train resistance.
3. After the 1,000-ton test train had been accelerated to a speed of 100 m. p. h., it required 3,379 adjusted drawbar-horsepower to maintain that speed on level tangent track.
4. The table shows the distance which would be required to accelerate the 1,000-ton test train at various speeds and horsepowers.

\* \* \* \*



### Baltimore & Ohio's "Centenarian" Train Leaves Baltimore, Md.

This 14-car train containing representative equipment of American railroad history from 1829 to the present left Baltimore, Md., on April 7 for the New York World's Fair where its parts are to be exhibited. The train was hauled by the "George H. Emerson," the first 4-4-4 type, four-cylinder, non-articulated, single expansion locomotive ever built, and included the "Tom Thumb," built in 1829, the "Atlantic" of 1832, the "Thomas Jefferson" of 1835 and the "William Galloway" of 1837.

LQ P.O.  
P. 211

# How the L. & N. Handles

## Merchandise



Careful Checking Prevents Lost Shipments

**T**HE Louisville & Nashville was one of the first roads to adopt motor trucks as a means of providing more flexible service for merchandise, having been the pioneer in establishing collection and delivery service in the Southeast. The problem of furnishing proper service in order to retain and increase merchandise tonnage on the L. & N. differs from that on many railways. The L. & N. receives the bulk of its merchandise from connecting lines through the Cincinnati, Louisville and St. Louis gateways, and the destinations are so widely scattered that there is not enough tonnage available to justify the operation of fast trains exclusively for merchandise. Fast overnight service has been provided from and to many points, as shown later in this article, but one of the principal problems has been the avoidance of terminal delays.

The L. & N. traffic and operating officers have been making a continuing study of ways and means of improving merchandise service for several years.

### How It Was Done

As a result of this study, 11 points were set up as being most important, as follows:

(1) Inauguration of universal collection and delivery service, with a view to effecting early morning store door delivery to the fullest extent possible. C. O. D. service (collection on delivery) is also a new development.

(2) Earlier opening of freighthouses and handling merchandise cars on Sundays and holidays at major freight stations or transfer points.

(3) More prompt line-haul movement and early placement of merchandise cars at freight houses.

(4) More prompt unloading by staggering of forces and the utilization of night shifts in some cases.

(5) Greater use of motor trucks for transferring freight between depots.

(6) Expedited movement of billing wherever practicable and blind checking in specific instances, preparing freight bills—expense bills—ahead of the arrival of

freight, permitting more prompt delivery to contract truckmen.

(7) Better loading of L. C. L. freight into cars and observing better station order, with the city freight in the door of the car in cases where the preponderance of tonnage is transfer freight.

(8) Handling merchandise cars on the head end or on either end of freight trains, where placement can be expedited.

(9) Overhead loading to avoid intermediate transfer points to the fullest extent possible.

(10) Employing additional set-out cars on overnight runs.

(11) Expeditionary transfer of through freight to out-bound connections.

### Faster Line-Haul

The L. & N. has made marked progress in speeding up the schedules of its freight trains, with the result that overnight service is now given on merchandise between all important points on its system up to 400 miles apart. A comparison of the present schedules with those of 1930 shows how the service has been improved:

| Points                    | Miles | Time<br>1939   | Time<br>1930   | Time<br>Saved |
|---------------------------|-------|----------------|----------------|---------------|
| Louisville-Nashville .... | 187   | 7 hr. 45 min.  | 11 hr. 37 min. | 3 hr. 52 min. |
| Cincinnati-Nashville ...  | 301   | 12 hr.         | 18 hr.         | 6 hr.         |
| Nashville-Montgomery ..   | 303   | 12 hr.         | 16 hr. 15 min. | 4 hr. 15 min. |
| Birmingham-Pensacola ..   | 260   | 13 hr. 30 min. | 26 hr. 30 min. | 13 hr.        |
| Birmingham-Mobile ....    | 276   | 10 hr. 20 min. | 17 hr. 40 min. | 7 hr. 20 min. |
| New Orleans-Montgomery    | 318   | 13 hr. 30 min. | 20 hr.         | 6 hr. 30 min. |
| Knoxville-Cincinnati ...  | 293   | 13 hr.         | 16 hr. 40 min. | 3 hr. 40 min. |
| Cincinnati-Knoxville ...  | 293   | 10 hr. 25 min. | 11 hr. 5 min.  | 40 min.       |
| St. Louis-Nashville.....  | 324   | 11 hr. 10 min. | 16 hr.         | 4 hr. 50 min. |
| Nashville-St. Louis.....  | 324   | 15 hr. 5 min.  | 21 hr. 30 min. | 6 hr. 25 min. |

These savings in time, while important, are even more significant when it is considered that the new schedules give overnight delivery, with later departure time, as against first afternoon or second morning delivery previously. The service for longer distances is also being improved constantly. For example, on January 9, 1939, a new schedule was established providing for early



second morning delivery on shipments from Cincinnati to Mobile, 782 miles, Pensacola, 766 miles, and New Orleans, 922 miles, which represents a saving of 24 hr. as compared with the previous schedules between those points.

Merchandise service has also been speeded up locally by an arrangement with the Railway Express Agency whereby certain specific L. C. L. traffic is handled on passenger trains on so-called "truck competitive" rates. This arrangement embraces hauls of 360 miles or less, and this particular merchandise receives express handling at rates approximating the equivalent freight rates.

### Eliminating Terminal Delays

The L. & N. has devoted particular study to the problem of eliminating delays to merchandise in terminals and at the larger stations. Motor trucks are used for interchanging merchandise between L. & N. freighthouses and connecting lines at almost every common terminal throughout the system, such interchange at the important Cincinnati terminal being handled by Motor Terminals, Inc., whose operations with trucks equipped with demountable bodies have been described in the *Railway Age*. A daily report is made at all major stations and terminals, showing when cars of merchandise arrive, when unloading is started and when finished, and these reports are scanned daily by operating and traffic officers and corrective measures taken where necessary. Delays to shipments because of paper work have been eliminated. Waybills are sent ahead on passenger trains, and the cars move on slip bills. The waybills thus arrive sufficiently ahead of the shipments so that delivery bills are made out and ready for the truckers to make deliveries as soon as the shipments arrive.

Switching in terminals and local yards has been speeded up by the simplification in movements involving car placements. This is under the constant care of a system supervisor of yards and terminals whose duty it is to take the "bugs" out of terminal operations. Wherever

possible, re-handling at terminals is eliminated. At River Junction, Fla., for example, where the L. & N. connects with the Seaboard on the New Orleans-Jacksonville line, operations have been changed so that no re-handling is done. All merchandise is loaded overhead between New Orleans and Jacksonville or between New Orleans and Pensacola, and merchandise cars move directly through this terminal without delays.

### Unusual Freighthouse Hours

To accept shipments as late as possible in the evening, and also to eliminate delays of various kinds, the L. & N. has worked out a system of staggering the hours of freighthouse forces at many points. Forces are on duty at all major stations on Sundays and holidays to transfer tonnage, thus speeding the movement from 24 to 36 hr. The opening hour at many stations is now 6 a.m. instead of the usual 8 a.m., to speed up early morning deliveries to consignees.

Night forces are also operated at several stations. This operation at Birmingham, Ala., saves 24 hr. on shipments destined to points on the circle of branch lines surrounding that terminal. At Decatur, Ala., a night force saves 24 hr. on merchandise interchanged with the Southern. At Paris, Tenn., the night force provides for much faster movement of merchandise interchanged with the Nashville, Chattanooga & St. Louis and on traffic moving to local stations north and south of that point. At Flomaton, Ala., a night force saves 24 hr. on shipments moving south to points on the Florida line and north along the Selma branch line.

Thus, by the judicious use of motor trucks in terminal operation and by improving almost every phase of merchandise operation, the L. & N. has provided a fast, convenient service always comparable and, in many cases, better than that available by competing transportation agencies. The results are apparent in the continuing and increasing volume of merchandise traffic handled by this railroad.



Mechanical Handling Increases Speed of Merchandise Movement Through Terminals

## Would Wipe Out Entire Equity of C. & N. W.

(Continued from page 695)

Miscellaneous provisions of Examiner Walsh's proposed plan stated that the new first and general mortgage bonds to be issued at the time of final reorganization should be part of an authorized issue of \$500,000,000, and issuable in series. He went on to say that series A bonds in the amount of \$58,316,093 should be issued for exchange or substitute pledge at reorganization. The bonds, he said, should be dated January 1, 1939, and mature January 1, 1989. They would bear fixed interest at the rate of  $2\frac{1}{2}$  per cent per year, payable semi-annually, and would also bear contingent interest at the rate of  $1\frac{1}{2}$  per cent per year.

The following distribution of securities for each \$1,000 bond is provided for in the proposed plan as follows:

Holders of \$31,315,000 of  $3\frac{1}{2}$  per cent general mortgage bonds of 1987 would receive \$198 of first and general mortgage bonds, \$463 of second mortgage bonds, \$427 of preferred stock and 0.40 shares of new common stock.

Holders of \$30,552,000 of general mortgage four per cent bonds of 1987 would receive \$202 of first and general mortgage bonds, \$470 of income bonds, \$434 of preferred stock, and 0.41 shares of common stock.

Holders of \$5,789,500 of  $4\frac{1}{2}$  per cent bonds of 1987 would get \$205 of first and general mortgage bonds, \$478 of income bonds, \$440 of preferred stock and 0.42 shares of common.

Holders of \$23,661,000 of  $4\frac{3}{4}$  per cent general mortgage bonds of 1987 would receive \$207 of first and general mortgage bonds, \$481 of income bonds, \$444 of preferred and 0.42 shares of common.

Holders of \$40,694,000 of general mortgage five per cent bonds of 1987 would get \$208 of first and generals, \$485 of income bonds, \$447 of preferred, and 0.43 shares of common.

Holders of \$14,775,000 of 15-year  $6\frac{1}{2}$  per cent secured bonds matured in 1936 would receive \$250 in first and generals, \$582 of income bonds, \$537 of preferred and 0.51 shares of common.

The holders of Sioux City & Pacific Railroad first mortgage  $3\frac{1}{2}$  per cent bonds of 1936, amounting to \$4,000,000, would get in exchange \$1,137 of first and general mortgage bonds.

Holders of Milwaukee & State Line Railway first mortgage  $3\frac{1}{2}$  per cent bonds, which amount to \$2,500,000, would receive \$311 of first and generals, \$445 of income bonds, and \$384 of preferred stock.

### St. Paul Eastern to Get Common Stock

St. Paul Eastern Grand Trunk Railway first mortgage  $4\frac{1}{2}$  per cent bonds in the amount of \$1,120,000, would be exchanged for 11.8 shares of new common stock.

Holders of the \$3,750,000 issue of Manitowoc Green Bay & North Western Railway first mortgage  $3\frac{1}{2}$  per cent bonds of 1941 would get \$375 of new first and general mortgage bonds, \$399 of income bonds, and \$366 of preferred stock.

Holders of \$15,000,000 of Milwaukee, Sparta & North Western first mortgage four per cent bonds of 1947 would receive \$240 of first and generals, \$271 of income bonds, \$330 of preferred stock, and 3.12 shares of common stock.

Des Plaines Valley Railway first mortgage  $4\frac{1}{2}$  per cent bonds, totaling \$2,500,000, would be exchanged for \$1.173 of new first and general mortgage bonds.

Holders of \$32,572,000 of first and refunding mort-

gage  $4\frac{1}{2}$  per cent bonds would get \$143 of first and generals, \$230 of income bonds, \$302 of preferred, and 4.86 shares of common.

St. Louis, Peoria & North Western Railway first mortgage five per cent bonds, amounting to \$10,000,000, would be exchanged for \$428 of first and generals, \$388 of income bonds, and \$384 of new preferred.

Holders of \$15,250,000 of first and refunding mortgage five per cent bonds would receive \$145 in first and generals, \$233 in income bonds, \$307 in preferred stock and 4.94 shares of common.

New common stock in the amount of 6.24 shares would be issued for each \$1,000 of debentures and unsecured claims.

The Reconstruction Finance Corporation, for its loan and accrued interest of \$47,366,004, would receive a \$25,000,000 note which would bear interest at the rate of four per cent, of which  $2\frac{1}{2}$  per cent would be fixed and  $1\frac{1}{2}$  per cent contingent and commutable, together with suitable collateral for the note. The Railroad Credit Corporation will receive new securities bearing a fixed interest rate of four per cent for 100 per cent of its claim.

## New Book . . .

*The Truth About the Railroads*, by L. C. Fritch. 105 pages.  $8\frac{1}{4}$  in. by  $5\frac{1}{4}$  in. Bound in paper. Privately published at 2265 E. Orange Grove Avenue, Pasadena, Cal.

The number of books and pamphlets dealing with "the railroad problem" is legion. But "The Truth About the Railroads" is different. In the first place, it is virtually the whole truth. Secondly, it is told by an experienced railroad executive who knows what he is talking about—and who, since he has retired from active service, no longer has to be too guarded in the freedom of his expression. The result is an exciting and down-to-earth discussion of railroad problems.

Mr. Fritch dedicates his modest volume to the memory of Messrs. Hill, Harriman and Cassatt with the hope that railroad policy may once again be administered with their type of energetic business statesmanship. The preface-page sums up his fundamental thought: "No nation, institution or individual, ever succeeded in borrowing itself out of insolvency into solvency." He then goes on to discuss with candor a host of considerations that come to mind. He thinks that the roads should have paid more attention to Mr. Coolidge's National Transportation Committee of 1933 and to Co-ordinator Eastman; that the failure of the Interstate Commerce Commission to carry out the "plain provisions" of the Transportation Act of 1920 "is directly and primarily responsible for the present plight of the railroads"; that the railroads commit tactical blunders in granting undue concessions to labor. He answers "what price peace" to those who point to the Railway Labor Act as a successful solution of labor disputes and belabors the adjustment boards with telling blows. Further points include a classification of roads into insolvent, semi-solvent and solvent carriers, with crisp observations on each class; a spirited section on "Preventable Waste" written along severely practical lines, and a vigorous criticism of present bankruptcy and reorganization processes.

The "way out" suggested by the author places the responsibility on three parties—the railroads, the government and the public—and is based on the principle that freedom be given the railroads to work out their own salvation. Mr. Fritch lists 31 "duties" for which management is responsible. Among the more striking of these is that the carriers should revise working agreements with employees; handle all l.c.l. shipments through the Railway Express Agency; and "again enter the political arena and have the same representation and protect their interests in the same manner as is done by every other industry and organization." Government is assigned 22 duties, centering about a policy of equality in treatment of all transportation agencies. To the public is recommended the obligation to interest itself in the problem of transportation as a whole.



# NEWS

## Name a Sleeper, Win Fair Trip

Pullman offers 550 prizes for names for new cars in big advertising campaign

A national advertising campaign, in connection with a country-wide car-naming contest, which has for its purpose the solicitation of patronage from persons of moderate income, is being conducted by the Pullman Company in selected publications on a schedule which permits the presentation of a Pullman advertisement practically every day during 1939. The circulation of these magazines is in excess of 30 million readers. While getting new customers is one of the principal points in the solicitation of persons of moderate income, there are two other important points in the campaign. One is the retention of present customers, the other is "sequential," that is, inducing them to use the higher priced accommodations.

All advertisements stress safety, comfort and the surprisingly low cost of traveling by Pullman. The backbone of the campaign is in magazines that have a great mass appeal, the theory being that the most inviting field for the development of new customers is among the people of moderate income, those who use forms of transportation other than railroads and Pullman because of mistaken ideas as to expense. This campaign is more widespread than any previously undertaken by Pullman, and it also embraces novel features. The first three months have demonstrated the public reaction and a gradually increased business can be traced partly to the thousands of inquiries that resulted from the nation-wide advertising.

A new and attractive series of booklets serves to back the advertising, and these have been distributed among those responding to the advertisements, railroad ticket agents who handle Pullman space, travel bureaus, hotels, and clubs and during exhibitions of Pullman equipment.

The car-naming contest, which is being launched this month, is offered "Absolutely Free—nothing to buy." Entry blanks are to be distributed by ticket and Pullman agents in response to mail or telephone requests. A total of 550 prizes will be offered to those who send in the winning names for the new Pullman "roomette" sleeping car to be exhibited at the New York World's Fair and pictured in the advertisements announcing the contest. These comprise two free round-trips by Pullman to those originating the 25 best

## Mine Strike Cuts Coal Traffic: Threatens Fuel Supply

The deadlock in negotiations between employees and operators in the Appalachian bituminous coal fields which has tied up soft coal production since the beginning of the month is not only cutting great slices out of railroad freight traffic, of which coal normally forms a large portion, but threatens to endanger the carriers' fuel supply as well. (According to *Railway Age* estimates, the railroads had an average of 34 days' fuel supply, including both coal and oil, on hand as of December 31, 1938).

The Baltimore & Ohio reported on April 19 that it had only six or seven days' supply of fuel coal on hand. Other Eastern roads were somewhat better supplied. The New Haven reported that it had six weeks' fuel supply on hand. The Pennsylvania has a three months' supply and states further that the "coal strike constitutes no threat to the continuance of complete Pennsylvania Railroad service. With rapidly declining coal traffic as a result of the strike, coal is being consumed in much less volume and available supply will last much longer than under normal traffic conditions."

names submitted; \$200 in cash for additional winners and 500 new dollar bills for the "runners-up."

## I. C. C. Allows Grain-Rate Reductions

The Interstate Commerce Commission, on April 19, lifted the suspension order entered four days earlier on April 15 and permitted railroads to reduce carload rates on ex-lake grain, in bulk, for export from Buffalo, N. Y., Erie, Pa., and Oswego, N. Y., to North Atlantic ports. Examples of the reductions are the cut from 11.17 cents per 100 lb. to 8.33 cents in the rate on wheat from Buffalo to New York; and from 10.67 cents to 7.83 cents in the rate from Buffalo to Baltimore, Md. The April 19 order modified that of April 15 only insofar as the later had suspended operation of the reduced-rate schedules from April 17 to November 17. Remaining in effect are the provisions of the April 15 order whereby the Commission entered upon a hearing concerning the lawfulness of the new rates.

## F. D. R. Gives Up On Naming Amlie

Defends his I. C. C. choice and says he was once called a Communist and Radical

President Roosevelt sent to the Senate on April 17 a notice of the withdrawal of the nomination of Thomas R. Amlie to be a member of the Interstate Commerce Commission. At the same time he released a letter to the former Wisconsin congressman in which he said that "nothing has occurred to alter my belief in your qualifications to serve as a minority member of the Interstate Commerce Commission." The President also ridiculed the charge that Mr. Amlie was a Communist and told the nominee that "A quarter of a century ago I, too, was called a Communist and a wild-eyed radical because I fought for factory inspection, for a fifty-four hour-a-week bill for women and children in industry and similar measures. You are still young and I hope that you will continue to work for the improvement of social and economic legislation under our framework of government."

Coincident with the release of the President's letter to Mr. Amlie, the White House made public the latter's letter to the President asking that his name be withdrawn because of the intense opposition that had developed in the Senate opposing confirmation. One of the reasons given by Mr. Amlie for asking that his name be withdrawn was that he did not "believe there is any great eagerness among the members of either the Democratic or Republican party in the Senate to defend the great principle of minority representation."

The President said at his April 18 press conference that he had not got around to thinking about a nominee in place of Mr. Amlie, who was named to succeed Commissioner B. H. Meyer. The name of former Governor Elmer Benson of Minnesota has been mentioned; also, it is understood that the Railway Labor Executives' Association has sent to the President a list of five names from which it is hoped he would select one for the commission. The list is composed of: J. G. Luhrsen of the Train Dispatchers' Association and executive secretary-treasurer of R. L. E. A.; H. A. Bacus, research director for the Brotherhood of Railway Clerks; L. E. Keller, director of statistical and research work for the Brotherhood of Maintenance of Way Employees; Homer C. King, assistant director of the Bureau of Service

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## Town Hall Forum Sifts R. R. Ills

Wheeler, Eastman and Pelley  
on radio town meeting; face  
battery of questions

"How Can We Solve the Railroad Problem?" came up for public discussion at "America's town meeting of the air" held in Town Hall, New York City, on April 13, in a nation-wide broadcast of NBC. The speakers—John J. Pelley, president, Association of American Railroads; Burton K. Wheeler, chairman of the Senate Interstate Commerce Committee, and Joseph B. Eastman, member of the Interstate Commerce Commission and former co-ordinator of transportation devoted eight-minute talks to the question, each agreeing that the carriers are in a bad way but showing marked differences in placing the blame therefor.

Mr. Pelley defended railroad management vigorously, in pursuing the theme of "what the railroad problem is not." He denied the validity of charges of over-capitalization, lack of progressive ideas, or high or discriminatory rates and fares. As for the consolidation panacea, he cited the fact that the four British systems are in as bad shape as our own, although they are the result of the enforced consolidation of 25 separate roads. Senator Wheeler began his talk with references to "wasteful management" and financial juggling as discussed in his committee hearings of the past few years. Regarding competition he declared that all forms of transportation should be regulated impartially and suggested a subsidy study. He boosted the mass-volume-low-price theory of rates and fares and was of the opinion that the whole rate-making structure needed study for possible revision.

Commissioner Eastman placed less emphasis on competition than the other two speakers. Besides, he said, the country has probably spent more money during the last 20 years on forms of transportation other than the railroads than all money invested in and by the railroads since their beginning, and "not all the king's horses or all the king's men could . . ." Speaking of the responsibility for the railroads failure to cope with new forms of transportation Mr. Eastman declared that not only was management at fault but employees were equally blind when confronted with new conditions "by trying to make two jobs grow where one existed before." He opined that now "railroad management has gotten in bed with railroad labor probably because they realize that labor has more political power than they."

For 45 minutes before the meeting went on the air, the floor was open for "discussion" from the audience of about 600. The "contestants" held no punches. One vociferous gentleman in the orchestra section shouted that management "has run out" and left stock and bondholders "holding the bag" who will expect the taxpayers to take over the roads and pay their equities—the "chumps." A fellow in the balcony

### Co-ordinated Mechanical Meetings in October

Owing to a conflict in date with the American Legion convention, which will tax hotel accommodations to the limit in Chicago during the last week in September, arrangements have been made to hold the co-ordinated mechanical association meetings, without exhibits, at the Hotel Sherman during the third week in October. These associations include the Railway Fuel and Traveling Engineers' Association, the Car Department Officers' Association, the International Railway General Foremen's Association and the Master Boiler Makers' Association.

Present plans call for a joint opening session to be addressed by an outstanding railway officer on Tuesday morning, October 17. The various associations will then adjourn to their respective meeting rooms for the consideration of individual papers and committee reports on the subjects in which each is especially interested. It is expected that an exhibition of railway equipment and supplies, sponsored by the Allied Railway Supply Association, will be held at the 1940 meeting of these associations.

wanted rates cut in half so traffic would double; he felt this was a swell argument for government ownership, too. A water transportation enthusiast tried to calm the scene by saying that he couldn't see that anybody in the transportation business had a right to call the other sheep black, while a young student denied that the railroads wanted to put competitors out of business; "competitive equality is their plea," he said. An old gentleman, however, reminded the audience that the railroads had sent the canals into limbo. And so it went on until the main program began.

### Philip Carey Executive Elected President of Executives League

Edward H. Crabbs, eastern executive of the Philip Carey Company, manufacturers of asbestos and insulating materials, has been elected president of the Executives League of America, Inc., New York. The league plans to form chapters in every state and county in the country, for the purpose of organizing business men to preserve the American system of free enterprise.

### Monument to Union Pacific

A concrete monument to mark the eastern terminus of the Union Pacific at Council Bluffs, Iowa, will be dedicated on April 28 by members of the Union Pacific board of directors as a part of the Golden Spike Days celebration being promoted in connection with the world premiere showing of the motion picture "Union Pacific." The monument, 56 ft. high, is in the shape of a spike, is hollow and has a ladder reaching to its peak. The head of the spike measures 13 ft.

## "Negative" Orders Held Reviewable

Frankfurter overrules old  
I. C. C. case which says  
that they are not

Several cases either directly or indirectly affecting the railroad industry were handed down by the United States Supreme Court on April 17. In the case of the Rochester Telephone Corporation v. United States and Federal Communications Commission, the court, speaking through Mr. Justice Frankfurter, overruled *Proctor & Gamble Co. v. United States*, and a long line of cases which followed the doctrine there laid down to the effect that a "negative" order is not subject to judicial review. In a comprehensive opinion Mr. Justice Frankfurter held that in determining whether a so-called "negative" order is subject to judicial review consideration must be given to (1) the statutory provisions for review; (2) the terms of the contested order; and (3) the grounds of objections to it.

Mr. Justice Frankfurter said in his opinion that "We conclude, therefore, that any distinction, as such, between 'negative' and 'affirmative' orders, as a touchstone of jurisdiction to review the commission's orders, serves no useful purpose, and insofar as earlier decisions have been controlled by this distinction, they can no longer be guiding."

Although the "negative" order in this case was issued by the Federal Communications Commission, yet the doctrine laid down here overruled a case directly concerned with the Interstate Commerce Commission, viz., *Proctor & Gamble v. United States*. The railroads have complained that they were unable to get a judicial review of "negative" orders of the I. C. C., but this decision and a decision in the *Federal Power Commission v. Pacific Power & Light Company* also announced on April 17 should remedy this situation in administrative law. In the latter case the court held a "negative" order to be judicially reviewable, but the conclusion of the Federal Power Commission was sustained on the ground that the court would not substitute its judgment for that of the commission in this particular case by reason of the special provisions of the Federal Power Act.

In another case of *Driscoll, et al. v. Edison Power & Light Co.*, Mr. Justice Reed, writing the opinion of the court, reversed the United States District Court for the Eastern District of Pennsylvania which had enjoined the action of the Pennsylvania Public Utility Commission in fixing temporary rates on the basis of a specified return on original cost.

On appeal to the Supreme Court the Solicitor General of the United States and a number of other agencies of the government asked the court to reverse *Smyth v. Ames* and establish the "prudent investment" theory of valuation, instead of the "cost of reproduction" theory.

Although the court did not mention *Smyth v. Ames* by name, it accepted the  
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## Private Carriers Need a Double-O

Eastman not sure control would be legal, but situation needs research

The Interstate Commerce Commission's present views with respect to the regulation of forwarders and the desirability of controlling private transportation were set forth by Commissioner Eastman, chairman of the commission's legislative committee, in separate letters recently forwarded to Chairman Lea of the House committee on interstate and foreign commerce. These reports complete the commission's reply to Chairman Lea's request of February 25 for comment on various suggestions for transport legislation; the main body of the commission's reply was made public by Chairman Lea on March 23, as noted in the *Railway Age* of March 25, page 522.

For his reply on the general question of regulating forwarders, Commissioner Eastman went to the recent decision in the Freight Forwarding Investigation from which it appeared that "two commissioners favor immediate regulation of common-carrier forwarding companies, two are opposed to regulation of such companies at any time, and seven favor regulation in the event that the railroads fail to make certain reforms in their less-than-carload freight service." Mr. Eastman goes on to say that H. R. 4827, introduced by Chairman Lea, "undertakes to subject the common carrier which it defines as 'forwarding companies' to regulation of the same pattern as is provided for motor carriers in the Motor Carrier Act. . . . It is drafted, however, in an abbreviated form, relying in large part upon references" to provisions of that act. The commission has not yet completed its study of this bill, and it requests an opportunity to submit a later report—if the committee should decide that forwarders should be regulated.

As stated by Mr. Eastman, the specific question presented by Chairman Lea with reference to private transportation is "the extent to which control over interstate transportation of property other than by common or contract carriers would be practicable and desirable." Whether such regulation is "practicable" appears to the commission to be "primarily a legal question, for if it is practicable as a matter of law, no doubt it is practicable in other respects." For reasons stated the commission hesitates, without further research, to express an opinion on the lawfulness of private carrier regulation which goes to matters other than safety of operations and equipment and insurance and security for the protection of the public. The regulatory body's tentative opinion, "for what it may be worth," is that further regulation "could not be sustained, unless it were definitely linked with the protection of a policy of Congress designed to promote the efficient and economical conduct of interstate transportation in the public interest, nor unless positive need for the regulation for the purposes of such protection could be shown."

### Would Divorce Pipe Lines from Oil Companies

Senator Gillette, Democrat of Iowa, and Senator Borah, Republican of Idaho, have jointly introduced in the Senate a bill (S. 2181) which would divorce pipe lines from oil-company ownership. A statement issued at the time of the bill's introduction said that the sponsors acted after learning that the commodities clause as now written in S. 2009, the "key bill" of the transport legislation introduced by Senators Wheeler and Truman, would not be retained in its present form.

S. 2009's commodities clause came to the fore several times during the recent hearings on that measure; but Senator Wheeler took the position on each occasion that the proposed application to all forms of transport and to the products of a carrier's "controlling person" was too drastic a change to include in general transport legislation. He expressed the view that it should have separate consideration.

Meanwhile the commission is "quite unable" on the basis of present information to say that there is any public need for regulatory control of private transportation. "Plainly," the Eastman letter adds, "the subject is not ripe for action at the present time. . . . The utmost that might now be done, with any degree of wisdom" would be to provide for research on the subject.

"There are steps, falling short of direct control," Mr. Eastman says in closing, "which may be taken to limit the spread of such private transportation. Division 5 of the commission has, for example, refused to grant to private carriers of property certificates or permits entitling them to engage also in common or contract carriage. Such a policy could by law be extended to water transportation."

### Cotton Belt to Purchase Truck Line

The federal district court at St. Louis has authorized the trustee of the St. Louis Southwestern to approve the purchase by the Southwestern Transportation Company, a wholly-owned Cotton Belt subsidiary, of a truck line operating between Jonesboro, Ark., and Blytheville, subject to approval by the Interstate Commerce Commission and the Arkansas Corporation Commission.

### Would Authorize Burlington Bus Acquisition

The Black Hills Stages would be authorized to purchase certain operating rights and property of the Black Hills Transportation Company and the Burlington Transportation Company, a wholly-owned subsidiary of the Chicago, Burlington & Quincy, would be authorized to acquire control of the Black Hills Stages if the Interstate Commerce Commission approves a recommended report of J. Edward Davey, chief of the section of finance of the Bureau of Motor Carriers.

## Bill for Waterways Reported in House

Rivers and harbors measure authorizes 60 projects to cost \$69,659,800

Sixty rivers and harbors projects with a total estimated cost of \$69,659,800 would be authorized by the rivers and harbors bill (H. R. 5753) which was introduced in the House of Representatives on April 13 by Chairman Mansfield of the House committee on rivers and harbors, and reported favorably by that committee on April 17. The bill carries no appropriations for the projects it authorizes; funds for this work are carried in a lump sum in the War Department civil functions appropriation bill and allotments are made by the Chief of Engineers.

The rivers and harbors committee's report on the bill states that "practically all of the projects in this bill are necessary modifications of existing waterway improvements and are deemed to be urgent in the present requirements of commerce and navigation." It adds that all of the projects adopted have also been "unqualifiedly recommended" by the Chief of Engineers and the Board of Engineers for Rivers and Harbors; and they got "the unanimous approval" of the committee "after careful investigation."

"The prosecution of river and harbor improvement projects is definitely a good investment," the report goes on. "No expenditure of public funds brings greater or more direct benefits to the American people than the money which we spend upon our meritorious waterways. Dividends are paid to the general public in the way of reduced transportation costs which are reflected in lower retail commodity costs. These returns far exceed the maintenance costs with a better-than-average return on the investment."

In this connection, as noted in recent *Railway Age* reports of Senate interstate commerce committee hearings on S. 2009, the "key bill" of the Wheeler-Truman transport program, Senators Wheeler, Democrat, of Montana, and Reed, Republican, of Kansas, insist that the benefits of waterway improvements accrue to big corporations who operate fleets on the rivers, but do not pass on to consumers the resultant savings in their transport costs.

The rivers and harbors committee report singles out for "especial mention" three projects which are expected to cost \$42,190,000 of the above-mentioned \$69,659,800 total. The biggest, estimated to cost \$25,900,000, is the Calumet-Sag Channel and Indiana Harbor and canal section of the Illinois Waterway to extend navigation "into the great South Chicago and Indiana Harbor industrial areas with their enormous tonnage," and to provide "a proper interconnection between the Great Lakes system and the improved Illinois-Mississippi navigation system." Next comes the \$10,290,000 project on the Mississippi at Chain of Rocks, which provides for "a lateral canal with lock to bypass a short

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## Rutland Dispute Stumps Mediators

Mediation Board suspends  
Rutland wage case; bond-  
holders to act

A severe blow to peaceful and co-operative efforts to keep the shaky Rutland in operation has been dealt by the withdrawal of the National Mediation Board from the dispute between the road's trustee and its employees over a wage reduction and the recent declaration by counsel for the bondholders that they would foreclose mortgages on the road's property unless assurance were given that their equity will be protected from accumulation of debts.

The National Mediation Board began proceedings on February 21 concerning a wage cut of approximately 17 per cent on a sliding scale of from 10 to 30 per cent announced by Receiver L. G. Morphy on December 9, 1938, to become effective January 12, 1939, as was reported in the *Railway Age* of January 14, page 121. The board has withdrawn from the dispute because the employees challenge the right of the road to withhold wages on the same sliding scale on the basis of an order of Federal Judge H. B. Howe, dated July 30, 1938, which remains effective until the wage cut dispute is settled and insist upon payment of the withheld funds as a prior lien on the property, which the court has disallowed.

According to a letter from Board Secretary Robert F. Cole to Receiver Morphy dated April 7, the Rutland has taken the position in the case that the court order withholding a portion of wages and disallowing claims for repayment of the same is distinct and separate from the receiver's request for a wage cut and that the Board should conclude mediation on the dispute which has been presented to it. The employees' representatives, on the other hand, contended that they would not negotiate any further wage change until settlement had been effected concerning that portion of wages withheld since August 4, 1938. They refused to accept Judge Howe's latest order, stating that he would terminate present wage deductions when a new reduction is agreed upon, declaring that the order "assumes that the current deductions from wages and disallowance of the prior wage liens are legal and proper," which they deny and have challenged in court.

The letter goes on to state: "Since the carrier refuses to restore the deductions from wages that it has been making since August 4, 1938, and the employees say they cannot negotiate any other changes or reductions until the withheld wages are restored, mediation between the parties as provided by the Railway Labor act cannot proceed until the legality of the wage deductions and the disallowance of the liens for wages has been determined. The board's duties in the case are limited to bringing the parties to agreement by mediation, and when it finds its best efforts unsuccessful it must endeavor to induce the parties to arbitrate. The board finds, however, that neither mediation nor arbitration as pro-

### Would Require Roads to Pool L. C. L. Freight

Senator Reed, Republican of Kansas, this week introduced in the Senate a joint resolution directing the railroads to develop plans for pooling all of their l. c. l. freight. The resolution leaves the detail of the pooling arrangements to agreement among the railroads themselves; but sets a January 1, 1940, deadline after which the failure to pool would be an offense.

vided by the Railway Labor act is possible until the legal and property rights of the parties are determined in the suit now pending in court.

"In accordance with its usual practice when mediation disputes involve questions that are in litigation before the courts, the board will, therefore, suspend mediation in the present case until such time as the legal and property rights of the parties that are in question in the pending suit are determined by the courts. Board Member Cook will hold himself in readiness to resume mediation as soon as the pending suit is decided or settled by the parties themselves out of court."

Counsel for the bondholders declared in the district court at Rutland, Vt., on April 15 that the bondholders would foreclose on the property and take possession unless given some assurance that their interest would be protected. They pointed out that about \$27,000, representing withheld wages, is being added each month to current debts and tax delinquency penalties of \$100 daily, which sums would have to be paid before their own claims can be satisfied.

### Ruling of Board of Tax Appeals

The United States Board of Tax Appeals has ruled in the case of Chicago & North Western v. Commissioner that a railroad which has consistently used the "retirement method" of accounting, in accordance with the regulations of the Interstate Commerce Commission, cannot, for the taxable years 1927 and 1928, obtain the benefit of deductions for depreciation and obsolescence not accounted for on its books, and not taken on its returns, in respect of its docks, elevators, and office building.

### Truckers and Shippers to Devise Pickup and Delivery Tariff

Committees representing five different motor carrier groups and shippers, at a meeting at Chicago on April 17, took action toward bringing local cartage operations within the scope of the Federal Motor Carrier Act of 1935, by deciding to adopt a pickup and delivery tariff which will be worked out by a central committee and approved by all carriers affected. The purpose of the action is to enable carriers of the Chicago area to work out some plan to bring stabilization to the industry in this region. A committee of motor carriers was appointed to determine the form the pickup and delivery tariff shall take.

## Talk Transport At Lincoln, Neb.

Experts discuss rates, regulation, taxes, business recovery at university session

Railroad, truck, waterway, banking, shipping and airline representatives discussed carrier problems at a conference on transportation held by the College of Business Administration of the University of Nebraska at Lincoln, Neb., on April 14. Approximately 350 persons from the state and points in the Missouri valley attended, to hear the rate structure, taxation and the railroad problem analyzed.

### THE RATE STRUCTURE

At the morning session, the rate structure was given consideration, the topics being: Co-ordinating and Systematizing Transportation Rates, by Professor Philip Locklin, of the University of Illinois; Nebraska State and Interstate Rates, by J. A. Little, freight counsel of the Nebraska Railway Commission; the Railroads Look at Their Competitors' Rates, by Robert O. Small, freight traffic manager of the Chicago & North Western; and Waterways Comments, by F. E. Schroeder, assistant to the president of the Inland Waterways Corporation. Professor Locklin contended that unrestricted competition between different forms of transport is ruinous in that it results in less-than-cost rates by all forms of transport, while it also distributes traffic on an unequal basis. "Government interference to prevent out-of-pocket cost rate making is necessary," he said. "In the adjustment of rates between competing agencies, the transportation costs of the cheaper agency should control. Some latitude should be permitted the higher cost transportation agencies to meet the rates of the low cost forms, if appropriate limitations are made to prevent rates below out-of-pocket cost; to prevent lower rates than are necessary to meet competition; and to avoid excessively wasteful transportation."

"The impact of motor-vehicle competition has limited the ability of the railroads to exact high rates on high grade traffic, while the ability of the individual to transport his own goods in his own truck restricts the ability of both railroads and highway carriers to exact high rates on high grade traffic if they expect to carry it. Insofar as waterways are maintained out of government funds, the costs of water transportation are not all included in the rates charged. As a result, there is undoubtedly some diversion of traffic from railroads to water carriers that could be carried more economically by rail."

Speaking at the luncheon session, Professor Locklin said there is little to support the accusation that the Interstate Commerce Commission is prejudiced against water carriers. "It is difficult," he said, "to define anything which warrants the fear often expressed that if the Commission is given control over water rates, or at least the power to prescribe minimum rates for water carriers it would regulate



water carriers solely in the interest of the railroads."

Mr. Small charged that there is inequality of opportunity for the railroads to compete with trucking and other forms of transportation. He briefly sketched the progress of rate structure control among the railroads under the Commission, saying that much will have been accomplished when trucking rates are controlled equally well.

"Unless the railroads are given every opportunity to engage in trucking within their operating territory, regardless of existing truck lines," he said, "railroad mileage will be materially cut. Branch lines and secondary roads, can be maintained and operated only if the railroads are able to obtain the traffic for which such lines were built." Contract trucks, he said, are not compelled to make public their contracts or to limit the number of their contracts. If it were not for the contract trucker, he continued, we could solve many of our difficulties more readily. Mr. Small also touched briefly on water transportation and pipe lines. He expressed a conviction that the federal government should discontinue operating the Federal Barge Line and that all waterway carriers should be placed under federal regulations.

During the afternoon session taxation was given consideration, the subjects being: Transportation Tax Burdens by Professor S. L. Miller, of the University of Iowa; Problems in Railroad Taxation by A. C. Spencer, western general counsel of the Union Pacific; and Problems in Motor Truck Taxation by John B. Lawrence, general manager of the American Truckers Association, Inc.

Mr. Spencer, in his discussion of taxes, distinguished between general taxes and special benefit taxes or assessments. The distinguishing feature of a tax, he said, is that it is compulsory rather than a matter of bargain or special benefit to the man who pays, and if and when the party making the contribution is to enjoy therefrom specific and definite benefit and value to the extent of such contribution, he is contributing nothing to the expenses of government or to related matters which have for their object the welfare of all. The Supreme Court, he continued, has held that even though a citizen enjoys specific benefits by virtue of constitutional amendment, statutory enactment or agreement, he is not, under such circumstances, eligible to classification as a general taxpayer, for he has contributed nothing to government if his payment is attended with a return of special benefits or uses equivalent to the amount of his payment.

Mr. Spencer also discussed land grants and their benefit to the government, the extent of tax burdens that threaten to engulf the railroads and taxing bodies. If curtailment in taxation is to be accomplished, he said, it will come from efforts of people in the country, coupled with co-operative action by home-devoted folks in the larger centers of population.

Samuel O. Dunn, editor of the *Railway Age*, and chairman of the Simmons-Boardman Publishing Corporation, was the main speaker at the evening session, his subject being, Is the Railroad Problem Insoluble?

The present problem, he said, is essentially and fundamentally that of increasing the difference between railroad gross earnings, on the one side, and operating expenses and taxes, on the other side—that is, of widening the margin of net earnings, or, in technical railroad parlance, net operating income. All other problems of the industry, he continued, are due to the decline of its net earnings and can be solved only by solving the problem of increasing its net earnings. "It can be solved," he said, "only either by (1) reducing operating expenses and taxes, or (2) increasing gross earnings without correspondingly increasing operating expenses and taxes, or (3) both reducing expenses and taxes and increasing gross earnings. He contended that the public should be concerned about transportation problems, especially the railroad problem, and should exert its influence with members of Congress and state legislatures in behalf of federal and state legislation that will contribute toward their solution, because:

"First, an increase in railroad buying of equipment and materials from less than 400 million dollars last year to a normal of about 1,000 millions annually is essential to promoting recovery.

"Second, the railroads need to make large purchases because they would require more locomotives and cars, and all their facilities in better condition, even if their traffic should increase again only to the level reached in the fall of 1936.

"Third, present government policies discriminating against the railways in favor of competing carriers artificially promote expansion of these other carriers, in spite of the fact that for the most part their total costs of rendering service, including the subsidies received by them from the taxpayers, are greater than the total costs incurred in rendering railway service. In consequence of this artificial promotion and expansion of other carriers, there is constantly occurring a large and unnecessary increase in the total burden of transportation costs borne by the public.

"Fourth, the present financial condition of the railroads hangs over all business, and especially over the securities market, like a pall and is a serious hindrance to the revival of business.

"Fifth, and most important of all, the present financial condition of the railroads is the worst possible threat to private ownership."

### Vickery on Merchant Marine

Commander H. L. Vickery, assistant to the chairman, United States Marine Commission, was the guest of honor at a luncheon of the C-All Club at the Engineers' Club, New York, on April 18. This luncheon club, made up of representatives from the railway and railway supply fields, was presided over by C. A. Gill, general manager of the Reading. Commander Vickery strongly emphasized the economic importance of the merchant marine to this country and outlined the various efforts which are being made to put it on a sound and effective basis. He indicated that it was clearly to the interest of the railroads to have this done, since it is desirable to have as much of our shipping as possible car-

ried by our own merchant marine, rather than by foreign ships, which relieve our railroads of certain business because of the desire to deliver the cargo in the foreign bottoms as near to the ultimate destination as possible.

### Many Killed in Mexican Train Collision

At least 32 persons were killed and 50 were injured on April 13 in a rear end collision of two passenger trains on the National Railways of Mexico near Queretaro, 130 miles north of Mexico City on the Laredo-Guadalajara line. The first train from Laredo, Tex. had stopped to repair a defective air brake line, when the second train from Guadalajara collided with it. According to the railway, the second train failed to heed the signal of the flagman of the first train.

### 1938 Freight Commodity Statistics

The Interstate Commerce Commission's Bureau of Statistics has issued its preliminary summary of 1938 freight commodity statistics, showing that the Class I railroads last year originated 771,862,020 tons of freight. The figures by commodity groups are as follows: Products of agriculture, 95,389,713 tons; animals and products, 14,760,144 tons; products of mines, 408,834,931 tons; products of forests, 43,973,197 tons; manufactures and miscellaneous, 194,511,738 tons; all l. c. l. freight, 14,392,307 tons.

### Monon Speeds up Indianapolis-Chicago Service

A new train, to be known as the Executive, will be placed in service by the Chicago, Indianapolis & Louisville between Indianapolis, Ind. and Chicago on a 4-hr. schedule, effective April 30. The train, which replaces No. 38, will leave Indianapolis, at 9 a.m. and arrive in Chicago at 1 p.m. as compared with the present schedule of No. 38 which leaves Indianapolis at 11 a.m. and arrives in Chicago at 3.10 p.m. The new schedule will enable travelers to spend a half-day in Chicago, with returning trains departing at 5 p.m. and 11.45 p.m.

### Court of Appeals Says H. & M. is Subject to R. L. A.

The Hudson & Manhattan, an electric rapid transit line operating between New York and Newark, N. J., was held to be subject to the Railway Labor Act in a decision of the federal circuit court of appeals at New York on April 10. The United States District Court had previously held that the Interstate Commerce Commission erred in deciding that the company was subject to provisions of the act. The appellate court upheld the Commission's finding that the road is not directly an interurban line inasmuch as joint facilities and services with the Pennsylvania places it as part of a steam railroad system.

### Hearing on Labor Act Status of Nevada Northern Employees

The Railway Labor Act status of "persons engaged in operating the so-called ore line of the Nevada Consolidated Copper

Corporation and/or the Nevada Northern Railway Company," will be considered by the Interstate Commerce Commission at a hearing before Examiner Steer at Ely, Nev., on June 20. This hearing in the general Ex Parte No. 72 (Sub-No. 1) proceeding was assigned as a result of the joint petition of John T. Corbett, assistant grand chief and national legislative representative of the Brotherhood of Locomotive Engineers, and J. A. Farquharson, national legislative representative of the Brotherhood of Railroad Trainmen.

### March Operating Revenues 11.3 Per Cent Above March, 1938

Preliminary reports from 88 Class I railroads, representing 81.9 per cent of total operating revenues, made public by the Association of American Railroads on April 14, show that these roads, in March, had estimated operating revenues amounting to \$257,989,504 compared with \$231,876,934 in the same month of 1938 and \$370,168,402 in the same month of 1930. The March gross was 11.3 per cent above that of March, 1938, but 30.3 per cent below March, 1930.

Freight revenues of the Class I roads in March, amounted to \$211,034,976 compared with \$185,327,568 in March, 1938, and \$284,999,409 in March, 1930—13.9 per cent above the former but 26.0 per cent below the same month in 1930. March passenger revenues totaled \$25,472,504 compared with \$25,392,971 in March, 1938, and \$50,859,135 in March, 1930—0.3 per cent above the former, but 49.9 per cent below the same month in 1930.

### New York World's Fair in Ten Minutes for Ten Cents

The Long Island will inaugurate non-stop shuttle service between Pennsylvania station, New York, and its station on the site of the New York World's Fair on April 30, coincident with the opening of the exposition. Reflected in the slogan "The World of Tomorrow in Ten Minutes for Ten Cents", the service is expected to be operated with 12-car trains seating approximately 900 people each scheduled every few minutes in both directions during hours the fair is opened.

The World's Fair Station, recently completed, will have capacity for handling 20,000 people an hour in each direction. Due to the special nature of the traffic flow, no tickets will be issued for the service and automatic turnstiles will be provided at the station concourse for the collection of the flat ten-cent fare from both inbound and outbound passengers. The multiple-unit electric cars to be used in the shuttle service have been decorated on the side windows on each end with the trylon-and-perisphere insignia of the exposition.

### I. C. C. Probe of Petroleum Rates in Northwest

The Interstate Commerce Commission has instituted an investigation of railroad and motor carrier rates on petroleum products moving from north Pacific ports to points in Idaho, Oregon and Washington, and from northern Montana to points in Idaho and Washington. At the same time the commission, following protests from

motor carriers, suspended from April 10 to November 10 railroad tariffs publishing reduced petroleum rates between these points.

In the notice announcing the institution of the investigation I. C. C. Secretary W. P. Bartel said that pending the disposition of the proceeding the commission would give consideration to any railroad or motor carrier applications for special permission to establish rates from north Pacific ports and northern Montana to Spokane, Wash., based on 32 cents per 100 lb., with related rates to other destinations, provided the interested state authorities are furnished copies of the special permission applications.

### Freight Car Loading

Loading of revenue freight for the week ended April 15 totaled 547,816 cars, the Association of American Railroads announced on April 20. This was an increase of 12,346 cars, or 2.3 per cent, above the preceding week, an increase of 10,231 cars, or 1.9 per cent, above the corresponding week last year, and a decrease of 198,707 cars, or 25.6 per cent, below the comparable 1937 week.

As reported in last week's issue, the loadings for the previous week ended April 8, totaled 535,470 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

| Revenue Freight Car Loadings     |           |           |           |
|----------------------------------|-----------|-----------|-----------|
| For Week Ended Saturday, April 8 |           |           |           |
| Districts                        | 1939      | 1938      | 1937      |
| Eastern .....                    | 128,394   | 115,353   | 165,512   |
| Allegheny .....                  | 100,683   | 98,855    | 157,349   |
| Pocahontas .....                 | 13,940    | 34,007    | 47,407    |
| Southern .....                   | 90,059    | 85,920    | 104,763   |
| Northwestern .....               | 67,848    | 62,709    | 81,199    |
| Central Western ..               | 92,200    | 84,707    | 102,583   |
| Southwestern ....                | 42,346    | 40,498    | 52,266    |
| Total Western Districts .....    | 202,394   | 187,914   | 236,048   |
| Total All Roads..                | 535,470   | 522,049   | 711,079   |
| Commodities                      |           |           |           |
| Grain and Grain Products .....   | 30,218    | 28,777    | 29,241    |
| Live Stock .....                 | 10,528    | 11,090    | 11,568    |
| Coal .....                       | 46,451    | 91,129    | 116,226   |
| Coke .....                       | 6,024     | 4,501     | 10,704    |
| Forest Products..                | 26,866    | 22,485    | 35,732    |
| Ore .....                        | 8,657     | 6,177     | 17,450    |
| Merchandise I.C.L.               | 157,755   | 150,656   | 173,653   |
| Miscellaneous ..                 | 248,971   | 207,234   | 316,505   |
| April 8 .....                    | 535,470   | 522,049   | 711,079   |
| April 1 .....                    | 604,241   | 523,489   | 721,229   |
| March 25 .....                   | 605,462   | 572,952   | 756,416   |
| March 18 .....                   | 594,568   | 540,365   | 754,922   |
| March 11 .....                   | 591,691   | 556,730   | 744,499   |
| Cumulative Total, 14 Weeks ....  | 8,129,975 | 7,680,730 | 9,896,380 |

In Canada.—Carloadings for the week ended April 8 totaled 38,995 as compared with 44,692 for the previous week and 43,101 for the corresponding week last year, according to the weekly statement of the Dominion Bureau of Statistics.

|                               |         | Total Cars Loaded | Total Cars Rec'd from Connections |
|-------------------------------|---------|-------------------|-----------------------------------|
| Total for Canada:             |         |                   |                                   |
| Apr. 8, 1939 .....            | 38,995  | 22,589            |                                   |
| Apr. 1, 1939 .....            | 44,692  | 23,119            |                                   |
| Mar. 25, 1939 .....           | 44,132  | 23,259            |                                   |
| Apr. 9, 1938 .....            | 43,101  | 20,314            |                                   |
| Cumulative Totals for Canada: |         |                   |                                   |
| Apr. 8, 1939 .....            | 568,516 | 319,066           |                                   |
| Apr. 9, 1938 .....            | 624,999 | 308,436           |                                   |
| Apr. 10, 1937 .....           | 657,898 | 392,210           |                                   |

### Bills in Congress

Representative Buck, Democrat, of California, has introduced in the House H. R. 5726, a bill to amend the Interstate Com-

merce Act by providing that a shipper shall not be liable in certain cases.

Representative Jeffries, Republican, of Ohio, has offered H. R. 5749, a bill to provide for the construction and operation by the Federal Government of a system of new durable, hard-surfaced toll automobile highways.

Representative Holmes, Republican, of Massachusetts, has introduced H. R. 5750, a bill designed to restrict the commission's authority with respect to limiting motor carriers to the handling of particular types of traffic.

A Senate interstate commerce subcommittee headed by Senator Hill, Democrat, of Alabama, has approved S. J. Resolution 99, which provides for an investigation by the Interstate Commerce Commission of rates on manufactured products between the various classification territories, and for an amendment to Section 3(1) of the Interstate Commerce Act. The resolution will be considered by the full committee in executive session in connection with S. 2009, Senators Wheeler and Truman's omnibus railroad bill.

The House and Senate have passed H. R. 5219, the second Deficiency Appropriation Act, which includes an appropriation of \$325,000 for the Railroad Retirement Board for the remainder of the fiscal year ending June 30, 1939, and the fiscal year ending June 30, 1940.

### House "Committee" Favors Resuming Work on Florida Canal

The House committee on rivers and harbors has voted to report favorably to the House a bill for resumption of construction of the Florida Ship Canal, which is estimated to cost about \$200,000,000. As pointed out in the *Railway Age* of January 21, this project was revived by President Roosevelt in letters sent to chairmen of the Senate committee on commerce and the House committee on rivers and harbors.

In the House on April 17, Representative Rich, Republican, of Pennsylvania, mentioned the project in a one-minute talk on extent to which "we have gone in the red" under Mr. Roosevelt. "I hope," said Mr. Rich, "the Florida Ship Canal will not be built at this time, because it is one of the most ridiculous things I ever heard of by the New Deal to date to spend money. It will involve \$200,000,000 of the taxpayers money to construct this canal. It is almost unbelievable that the members of Congress will spend these millions of dollars for such an unworthy and unwarranted project." Representative Rankin, Democrat, of Mississippi, suggested that the canal is "for national defense"; but Mr. Rich came back with: "National defense nothing. It is pork barrel. Why were all congressmen who wanted it given a free trip to Florida with all expenses paid, if it is not pork-barrel legislation?"

### N. & W. Offers All-Expense and Round-Trip Fares to the Fairs

In a bid for passenger traffic to the New York World's Fair and the San Francisco Golden Gate Exposition, the Norfolk & Western has announced special fare and service offerings, effective April 28 and continuing to October 28, which are addi-



tional to the "grand circle" fares participated in by all the carriers. The railroad will operate all-expense tours to the New York fair for periods of from two to seven days which cover all necessary expenses including railroad fare, meals en route, local transfer to and from stations, hotel accommodations, a sight-seeing tour of New York and admission tickets to the fair. Under this plan visitors will have a choice of various priced hotels. The tours are being arranged for parties of 25 or more.

Other scheduled travel features are six special tours by rail and water from Cincinnati, Ohio, and intermediate points along the N. & W. to New York via Norfolk, Va., and the Eastern Steamship Lines. All of the tours include round trip railroad and steamship fares, meals and berth on steamer, while several provide hotel accommodations, admission to the fair and sightseeing tours.

In addition the road will offer reduced round-trip week-end fares from all points on the system to the New York fair and special round-trip fares to San Francisco.

### Club Meetings

The Northwest Car Men's Association will hold its next meeting on May 1 at the Midway Club rooms, Minneapolis, Minn., at 8 p. m. K. F. Nystrom, mechanical assistant to chief operating officer of the Chicago, Milwaukee, St. Paul & Pacific, Milwaukee, Wis., will present a paper entitled "Light-Weight Passenger Cars."

The New England Railroad Club will hold its next meeting on May 1 at the Hotel Severin. T. V. Buckwalter, vice-president, Timken Roller Bearing Company, will present a paper entitled "Locomotive Slipping Tests," illustrated by motion pictures and slides.

The Car Foremen's Association of Omaha, Council Bluffs and South Omaha Interchange will hold its next meeting on May 11 at 1.30 p. m. at the Council Bluffs (Iowa) offices of the Union Pacific. C. B. Stemple will discuss "Rules 68 to 75."

The Toronto Railway Club will hold its next meeting on April 24 at the Royal York hotel, Toronto, Ont. By courtesy of the New York Central two A. A. R. sound slide films entitled "This Railroad Business" and "Friendliness Too" will be shown.

The Car Department Association of St. Louis will hold its next meeting on May 16 at the Hotel DeSoto, St. Louis, Mo. E. W. P. Smith, consulting engineer, Lincoln Electric Company, will present a paper "On Electric Welding As Applied to Railroad Equipment." Motion pictures will also be shown.

### N. Y. C. Announces Cuts in Train Time

Faster service from St. Louis, Mo., and Chicago to New York; extension of the "Empire State Express" to Cleveland, Ohio; and two new trains from Buffalo, N. Y., to New York feature the new passenger train schedules which the New York Central will make effective April 30 coincident with the change to daylight saving time. The "Knickerbocker" from St. Louis to New York will be speeded up one

hour 25 min., and the "Lake Shore Limited" and the "Commodore Vanderbilt, both Chicago to New York, will be quickened 55 min. and 10 min., respectively. The Knickerbocker will leave St. Louis at noon as now, but will arrive in New York at 10:15 a. m., instead of 11:45 a. m., as at present.

The Lake Shore, which now leaves Chicago at 6:05 p. m., will leave at 5:30 p. m., and arrive in New York at 2:30 p. m., instead of 4 p. m. The Commodore Vanderbilt, which now leaves Chicago at 2:55 p. m., will leave at 2:05 p. m. and arrive in New York at 8:05 a. m., instead of 9:05 a. m. The Empire State Express, now operated only between Buffalo and New York, daily, will be operated every day, except Sunday, each way between New York and Cleveland, Ohio, via Buffalo. Westbound, it will leave New York at 8:50 a. m., arriving at Buffalo at 4:45 p. m. and Cleveland at 8:15 p. m. It will leave Cleveland at 10 a. m., arriving at Buffalo at 1:20 p. m., and New York at 9:25 p. m.

Of the two new trains to be established from Buffalo to New York, one, the "Henry Hudson," will leave Buffalo at 3:04 a. m., and arrive in New York at 12:15 p. m.; the other, to be called the "Mohawk," will leave Buffalo at 6 a. m., and arrive in New York at 4 p. m. The "Fifth Avenue Special" will be operated on a schedule 10 minutes shorter, leaving Chicago at 11 a. m., as at present, but arriving in New York at 7:30 a. m.

### New York Central Cites Figures in Defense of High Fares

The Eastern railroads, operating under a 25 per cent basic passenger fare increase from 2 to 2.5 cents per mile authorized July 25, 1938, by the Interstate Commerce Commission, showed in the first six months of operation under such fare a smaller decrease in revenues than did the Southern and Western groups, which operated under lower fares, chiefly 1.5 cents and 2 cents, according to a study of Commission statistics issued by the New York Central general offices on April 18. The decline in passenger revenues for the six months ended February 1, 1939, for the Eastern region averaged 8 per cent as against the same six months in 1937 and 1938; for the Western group the decline was 9.4 per cent and for the Southern group, 15.6 per cent, the study revealed.

The statement went on to point out that the Eastern roads "have experienced a relatively constant decrease month by month in the margin between revenues received in the two six-months periods," noting that in December the New York Central had only 1.1 per cent and the Pennsylvania only 1.4 per cent less passenger revenue than for the same month in 1937, while one road, the New Haven, showed an increase in November and December.

According to the New York Central: "Many railroad officers have interpreted these figures as indicating that the higher fares not only are conserving revenue, but also are being accepted by the public. They also pointed out that the decrease in the 1938-39 revenues from those of the sim-

ilar 1937-38 period could undoubtedly be attributed in a large part to the considerable slackening in general business and consequently in commercial travel since the new fares were put into effect. They also called attention to the fact that the Eastern territory has the most intensive passenger traffic of any of the three regions and hence derives a substantial and important portion of its total revenues from passenger fares. In 1938, passenger revenue was 15.2 per cent of total operating revenues. While it is felt, they said, that the experience gained since July was not of long enough duration to be conclusive, the results so far might well be regarded as having significance."

It was further stated that the Eastern roads have appointed a committee to study the fare situation and report recommendations, under the chairmanship of F. E. Williamson, president of the New York Central, which committee "is still at work."

### Governor Lehman Approves New York State Crossing Bill

Governor Lehman of New York State has approved the Wicks bill which enacts into law the recent amendment to the state constitution providing that the cost of eliminating highway grade crossings within the state is to be borne by state appropriations, with the exception of that part of the improvements directly benefiting the railroads, for which they will be responsible up to a maximum of 15 per cent of total cost. According to the act as amended through successive bills, contracts for such construction work shall be awarded only after public bidding and the work will be done under the direction of the State Department of Public Works.

Within an hour after the governor signed the act the Public Service Commission ordered the re-opening of 25 cases covering the elimination of 42 grade crossings at an estimated cost of \$6,282,225, to determine whether any changes are necessary in the orders which were issued prior to enactment of the constitutional amendment. The cases selected for hearings cover plans which are practically complete, so that contracts may be advertised, awards made and work begun as soon as the hearings are concluded, but which were held up by the railroads concerned pending enactment of the law. Hearings involving crossings of the New York Central will be held on April 27; of the Erie, Delaware, Lackawanna & Western and Lehigh Valley on April 28; and of the Long Island, Pennsylvania, New York, Chicago & St. Louis; New York, New Haven & Hartford; Baltimore & Ohio and New York, Ontario & Western on May 1.

### Jersey Tax Compromise Voted; Federal Judge to Study Tax Method

The New Jersey state Senate, on April 17, passed the Foran bill compromising state railroad taxes for 1932 to 1938, inclusive, at 75 per cent of the total levy. On the same date Judge William Clark of the United States District Court in Newark, N. J., who has jurisdiction over the reorganization of the New York, Susquehanna & Western, a New Jersey carrier, announced that his court believed it



necessary to investigate the underlying principles of railroad taxation in the state and instructed Walter E. Kidde, trustee for the road, to hold up payment of current and withheld state taxes pending court hearings on the validity of New Jersey's claims amounting to approximately \$1,500,000 representing back taxes 1932 to 1938, inclusive, and the current 1939 assessment.

Full passage of the Foran bill would mean that the roads would pay \$14,263,250 of over \$34,250,000 representing the withheld portion of state taxes for the seven years covered by the measure. The bill has yet to be voted by the state Assembly and its provisions have not yet been accepted by the carriers, whose highest compromise offer to date has been 72½ per cent of the total assessment.

The Senate bill provides that the railroads make immediate payment of \$5,000,000 and render the balance in installments over a period of seven years with interest at 3 per cent. The Senate action followed a report of findings by a special legislative committee appointed earlier in the year to investigate tax litigation in state and federal courts of more than six years' duration.

### House Passes Chandler Rail Revamp Bill

The House has passed and sent to the Senate H. R. 5407, the bill introduced by Representative Chandler, Democrat of Tennessee, which would give legal sanction to voluntary railroad reorganizations. The bill was passed on April 17 by a unanimous vote after the Rules committee had granted it a preferred status on the House calendar. No criticism of the bill was voiced on the floor, and after Representative Chandler had explained certain features of the bill to various members of the House, it was passed without a roll call. Details of the bill were given in the *Railway Age* for February 11, page 281, and March 25, page 534.

Although the bill encountered no opposition on the House side, it is expected that it will not have such smooth sailing in the Senate. Advocates of S. 1869 introduced by Senator Wheeler which is designed to establish new and drastic standards and methods of procedure in railroad reorganizations have begun a drive in the Senate to give this measure precedence over the Chandler bill.

One prominent opponent of the Chandler bill is A. A. Berle, Jr., Assistant Secretary of State, who has written a memorandum to Senator Wheeler, chairman of the Senate interstate commerce committee, strongly opposing the measure. Mr. Berle contends that the Chandler bill would permit a piling up of stale claims against a railroad which would have to be paid or written off later instead of resulting in a writing down of existing debts and interest charges.

Mr. Berle went on to point out that in his opinion the principle of a moratorium has never been valid except in certain emergencies including the threat which existed in the summer of 1938 when he, joined by the Reconstruction Finance Corporation, proposed a short-term stop-gap

loan proposal pending a comprehensive railroad program at the following session of Congress.

It is understood that Senator Wheeler may join in or lead an active opposition to Senate approval of the Chandler measure.

### Supplemental Report in Freight Forwarding Investigation

The Interstate Commerce Commission, by Commissioner Porter, has issued a supplemental report and order in the Freight Forwarding Investigation, reopening that phase of the proceeding which relates to respondent railroads' practices of permitting carload shipments of forwarders to be stopped to complete loading or partly to unload at points which are off the direct route from origin to destination, and broadening the proceeding's scope to include similar practices with respect to carload shipments of other shippers. The supplemental report also modifies the original report's findings relating to all-commodity rates, advancing charges of forwarding companies and expedition of forwarder traffic over the Missouri-Kansas-Texas to Dallas, Tex. Petitions of various respondents were denied in all other respects.

Commissioner Eastman, concurring in part, agreed with the supplemental report's findings insofar as they were consistent with the conclusions stated in his separate expression in connection with the original report. Also, he would grant in their entirety the petitions for reargument and reconsideration, except that with respect to those of the New York Central, Chesapeake & Ohio, Pere Marquette and Erie he would limit the reopening to certain questions. Commissioner Mahaffie joined in Commissioner Eastman's expression.

The commission's order now becomes effective May 17, except that it is indefinitely postponed insofar as it relates to the stop-off practices. The original report in this proceeding was reviewed in the *Railway Age* of November 19, 1938, page 745.

### General Motors Dedicates New York World's Fair Exhibit

At a "Highways to New Horizons" dinner on April 19, given by Alfred P. Sloan, Jr., chairman of the board of the General Motors Corporation, dedicating that company's exhibit at the New York World's Fair, a roll call of products developed through industrial research disclosed several hundred significant new materials, things, or processes, which were cited as the basis for the expectation that the expansion of industrial frontiers has only begun in this country. More than a score of these citations deal with materials, devices, or methods, most of which are now being applied and a few others of which may be applied in the near future to railway motive power, rolling stock, or track. The meeting was addressed by Mr. Sloan and Charles F. Kettering, vice-president of General Motors in charge of research.

His survey of research developments, Mr. Sloan said, brought him information from many fields—plastics, steel, oil, motors, chemistry, railroad, aviation, and others. It revealed a variety of accom-

plishments, such as fiber glass, new materials from skimmed milk, new uses for waste products, air conditioning, etc. "I believe that these results of industry demonstrate what can be done in the development of new products and the improvement of old ones," said Mr. Sloan, "—how prosperous times can be restored through constructive work. I firmly believe that our continued, and always accelerating, efforts along these lines cannot fail to speed up recovery and prove that industry's developments will bring tangible results in solving our problems."

A motion picture presented accomplishments in the five-year interim since the rededication of the General Motors building at the Century of Progress Exposition at Chicago in 1934. In introducing this feature of the program, Mr. Sloan said: "Industrial horizons have been lifting in spite of the difficult problems of the last few uncertain years—new concepts in science and research, new techniques in production and distribution, and, above all, the beginnings of a new understanding of the true function of industry as an integral part of our social and economical life."

### Plans Announced for A. A. R. Tests of High-Speed Freight-Car Trucks

J. J. Pelley, president of the Association of American Railroads, has issued a statement outlining plans for the research project on high-speed freight-car trucks, which was authorized at March 31's Washington, D. C., meeting of the A. A. R. board of directors, as noted in the *Railway Age* of April 8, page 626. Mr. Pelley's statement reveals that the research project for which the A. A. R. directors appropriated \$45,000, will take the form of "a series of tests to determine what improvements can be made in the construction of railroad freight-car trucks in order to better fit them to meet operating conditions resulting from greater high-speed freight service."

"These tests, which will begin as soon as possible after April 15," Mr. Pelley continues, "will be the most comprehensive of their kind ever conducted by the railroads. Out of them are expected to result the development of a freight-car truck that can be used on freight trains moving at speeds as great as the fastest passenger trains now being operated in the United States. The railroads in recent years have made material increases in the speed with which freight is being moved over the rails. Due to improvements in locomotives and freight cars and methods of operation, the average speed of freight trains in 1938 was 61 per cent higher than in 1920. In many instances freight trains are now being operated on what were formerly passenger-train schedules."

"The purposes of these tests will be to bring about: (1) Still greater improvement in safety on the railroads; (2) a continued improvement in service to the public by expediting still further the movement of freight; (3) reduced maintenance, both to equipment and road-bed; and (4) increased efficiency in operation."

Approximately one year is expected to be required to complete the tests and the preparation of a report. The road tests will be run over the Pennsylvania from

March 11, 1939

RAILWAY AGE

29

## LIMA POWER AT WORK

KANSAS CITY SOUTHERN  
PROFITS FROM NEW POWER



"Kansas City Southern Railway in 1938 effectively demonstrated the use of new equipment in reducing unit costs at a greater rate than the fall in total volume of business. Figures for this road show that while there was a drop of 8½% in the volume of freight business in 1938 as compared with 1937, there was a reduction in the unit costs, as measured by 1,000 gross ton miles, of 11%. . . . This was mainly brought about by the thorough application of new high-speed freight locomotives, delivered over 1937, and their use in hauling 40-car and 50-car trains at high speed instead of 30-car trains."

During 1937 Lima Locomotive Works, Incorporated delivered a group of modern 2-10-4 type locomotives to the Kansas City Southern.

Modern power is earning power.

LIMA LOCOMOTIVE WORKS,



INCORPORATED, LIMA, OHIO

# FACTS CANNOT BE IGNORED

They prove that new power  
will increase earnings

Altoona, Pa., to Lock Haven, Pa., a round trip distance of 156 miles. They will be under the general direction of W. I. Cantley, mechanical engineer, Mechanical Division of the A. A. R. W. E. Gray, engineer of draft gear tests of the Association, will be in direct charge of the tests.

Railroad freight-car truck manufacturers located in various parts of the United States have turned over to the A. A. R. about a dozen different types of freight-car trucks for testing purposes. Each one will be given a separate and thorough test under varying conditions, both as to load of cars and as to speed. Test runs between Altoona and Lock Haven will be made every other day, the intervening time between each run being devoted to installing the various freight-car trucks and to making changes in the load of the cars used in the test runs.

### I. C. C. Affirms Decision Imposing Labor Conditions

Asserting its authority to impose labor-protection provisions in merger cases, the Interstate Commerce Commission, in a report on re-argument, has affirmed Division 4's findings imposing such provisions as a condition precedent to approval of the lease by the Chicago, Rock Island & Pacific of the properties of the Chicago, Rock Island & Gulf. The Commission did, however, enter an order which will permit the applicants to test the case in court; Division 4 had withheld the entry of an order approving the transaction until the labor-protection provisions were accepted.

In the latter connection, the Commission thought it could have followed Division 4 on the theory that it has power to determine procedures necessary to make its findings effective. However, it had "no inclination to decide this case in such manner as in the opinion of the applicants would make it impossible for them to secure a review of our conclusions by the courts." Commissioner Eastman wrote a brief concurring opinion while other separate expressions, both dissenting in part, came from Chairman Caskie and Commissioner Mahaffie, who was joined by Commissioners Lee and Miller. Commissioner Eastman thought there was "reasonable doubt" about the Commission's authority to impose the conditions, but he believed the majority was justified in resolving such doubt in favor of the conditions. Chairman Caskie was unable to agree that the Commission had power to impose the conditions, despite his disposition to be "fully sympathetic with the humanitarian efforts of the majority." The chairman found recommendations in recent I. C. C. annual reports to support a statement that "until now a like opinion evidently has been held by the majority." For reasons stated in his dissent from the original report, Commissioner Mahaffie was unable to agree "that we have been given jurisdiction to regulate carrier employment or the compensation and expenses of carrier employees." Commissioner Aitchison did not participate in the disposition of the case.

Made public along with the foregoing was Division 4's report on re-argument in

another "labor-protection" case—that involving the acquisition by the Louisiana & Arkansas of the Louisiana, Arkansas & Texas by acceptance of the latter's capital stock, and the merger of the properties of both into the L. & A. This transaction was approved without the imposition of the labor-protection provisions originally included, because the parties have since agreed to apply the so-called Washington agreement. The decision also authorizes the L. & A. to procure the authentication and delivery of not exceeding \$850,000 of first-mortgage five per cent bonds, Series C, in connection with the merger, the bonds to be held in the treasury subject to further order of the Commission. Division 4's original reports in these cases were reviewed in the *Railway Age* of November 12, 1938, while the re-arguments were reported in the issue of March 4.

### F. D. R. Gives Up On Naming Amlie

(Continued from page 707)

of the commission; and W. J. Patterson, director of the Bureau of Safety of the commission.

Meanwhile, the Senate interstate commerce subcommittee investigating the nominations of Mr. Amlie, Commissioner Lee and J. Haden Alldredge has favorably reported to the full committee the nominations of Mr. Lee and Mr. Alldredge. Early action by the full committee is expected.

The President wrote Mr. Amlie that "I deeply regret that a certain type of opposition should deprive the Interstate Commerce Commission of one as able and as wholeheartedly devoted to the public service as you are. You and I have often differed on important issues, but I can assure you nothing has occurred to alter my belief in your qualifications to serve as a minority member of the Interstate Commerce Commission. Those who for political reasons have called you a Communist do not perhaps realize that such name-calling ill serves the democratic form of government which this Nation as a whole wishes to continue."

After thanking the President for sending up his nomination, Mr. Amlie told Mr. Roosevelt that it was "unfortunate, but not altogether surprising, that such a high spirit of responsible non-partisanship should be regarded by timid politicians as a dangerous political liability, and by a hysterical press as a veritable trafficking with the devil."

After pointing out that the President had sent his name to the Senate on January 24, as a minority member of the commission, Mr. Amlie explained that "a reactionary press and an unscrupulous political cabal immediately seized the occasion to transform the public debate and the Senate hearings over my confirmation into a veritable witchcraft trial."

"Because I had," he wrote, "in the course of my eight years' agitation for a permanent solution of our mass unemployment problem expressed doubts at times as to the ability of unregulated capitalism to solve this problem, I was branded as a communist and subverter of American in-

stitutions. Because I had expressed my sympathy for the late Loyalist Government of Spain, I was accused of being an accomplice in the 'promiscuous slaughter of Christians and their apostles'. Because I had at various times proposed government ownership of the railroads, I was accused of wishing to wipe out the savings of widows and orphans."

Mr. Amlie went on to point out that "The real explanation of the savage attack on me lies not in my own deeds or misdeeds, but in the political calculation that by branding me as a Communist and an anti-Christ, a real blow—a blow below the belt, to be sure, but nonetheless a real blow—could be struck against you, Mr. President and your administration."

Mr. Amlie criticized his opponents for subscribing to what he termed a doctrine of "second class citizenship." Under this theory of government, he said, he was free, under the Constitution, to advocate any ideas he pleased, but it was improper to assign him to any governmental agency. "Full citizenship," he wrote, "full participation in democracy, is to be accorded only to those whose ideas are acceptable to the American Liberty League; to the rest, only second class citizenship."

"With dismal ignorance and unmitigated arrogance," he concluded his lengthy letter, "the partisans of such a doctrine speak of it as Americanism. A glance at American history and at American traditions reveals what would have happened had this doctrine prevailed. This doctrine would have barred from full citizenship Abraham Lincoln, who wrote that it was wrong that 'some have labored, and others, without labor, have enjoyed a large proportion of their fruits', and that it is a 'worthy object of any good government' to 'secure to each laborer the whole product of his labor as nearly as possible'."

### "Negative" Orders Held Reviewable

(Continued from page 708)

valuation claimed by the utility company based upon cost of reproduction new less depreciation, and finding that the return, after allowable charges, would yield six per cent upon that valuation, held the rates fixed by the Pennsylvania commission not to be confiscatory. Mr. Justice Frankfurter concurred in the majority's opinion but went on to point out that it "needlessly gives new vitality to *Smyth v. Ames*."

In the case of the United States et al. v. Maher, the Supreme Court reversed the United States District Court for the District of Oregon and sustained the I. C. C. in its denial of a certificate of convenience and necessity as a common carrier by motor vehicle of passengers in interstate commerce between fixed termini where the applicant had previously performed anywhere-for-hire services, and claimed the new certificate under the "grandfather" clause of the Motor Carrier Act.

The court also held that the commission was not required to consider the application under Section 207 (a) of the Motor Carrier Act of 1935, and determine whether

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# "HIGH MILEAGE between tire turnings"



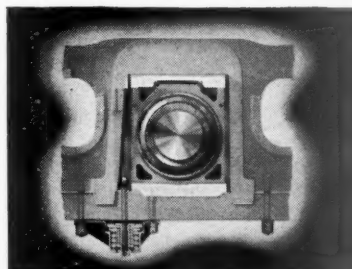
Photograph courtesy of the Union Pacific Railroad

"...Each driving box is fitted with a Franklin Compensator and Snubber and lubricated on both pedestal faces and on each side of the wedge by mechanical force-feed lubricator.

"... The mileage between tire turnings and tire condition just prior to turning is an all-around check on design efficiency. The average tire mileage up to the first turning was 104,000 miles with a maximum of 133,000 miles. Prior to turning, all tires were found to be wearing evenly and uniformly round and of the same diameter. There has been no evidence of quarter slip. These new locomotives have made a maximum of 18,200 miles per month."

Reprinted from Railway Age article of March 11, 1939, entitled:  
"Intensive Locomotive Use Pays Union Pacific Big Returns"

Franklin Automatic Compensators and Snubbers protect the roller bearing driving boxes of the Union Pacific 800 Class locomotives referred to above. The results obtained graphically demonstrate the worth of this economy device.



Franklin Automatic Compensator and Snubber for Roller Bearing Driving Box application.



**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

NEW YORK  
CHICAGO  
MONTREAL

public convenience and necessity required the issuance of a permit.

The case arose when Maher, operating as Interstate Busses, sought permission from the I. C. C. to operate as a common carrier between fixed termini despite the fact that on June 1, 1935, he was operating on an anywhere-for-hire basis. The commission found that on the "grandfather" date he was operating on the latter basis, but that he continued to so operate until May 29, 1936, when he began his fixed termini operations. The I. C. C. denied his application for "grandfather" rights, and he appealed to the U. S. District Court for the District of Oregon which upheld his contentions. Although reversing the lower court, the U. S. Supreme Court held that the order of the commission was judicially reviewable under the doctrine laid down in the instant Rochester telephone case.

California's Motor Caravan Act was held constitutional in a decision in the case of Clark, Director, Department of Motor Vehicles of California, v. Gray, et al. The court held that the Act, which imposes a tax of \$7.50 for each car caravaned into the state, was valid on the grounds that states have the constitutional right to exact reasonable fees for the use of highways, and that the classification of traffic for purposes of regulation and fixing fees is a legislative function and not a judicial one. A previous law fixing the tax on each car at \$15 had been held unreasonable, but the court found that \$7.50 was a fair figure and covered the costs of administering the statute. The state had contended that the driving of cars in groups on the state highways damaged the roads and entailed more extensive policing.

In the case of the Boston & Maine v. Williams, the court declined, by denial of a petition for a writ of certiorari, to review a decision of the Supreme Court of New Hampshire holding the railroad liable for injuries and death of circus personnel while being transported by it pursuant to an agreement providing that the railroad was not acting as carrier, either common or special, of the circus personnel, but as a hirer of its cars.

## Bill for Waterways Reported in House

(Continued from page 709)

but dangerous section of the river where the swift current and rock ledges across the river bed make navigation difficult and the maintenance of a nine-ft. channel impractical; completion of this project "will assure full utilization of connecting channels of the Mississippi river system already completed or nearing completion under previous authorizations." The third project of the "especial-mention" group is the \$6,000,000 job on the Missouri river from the mouth to Sioux City, now a six-ft. project, which "can, at relatively low cost, be given a depth of nine ft. to conform with the depths in the Mississippi, Illinois and Ohio rivers."

Others of the 60 projects which run into some money are: Guadalupe river, Tex.,

\$8,500,000; Louisiana-Texas Intracoastal Waterway, \$5,200,000; Mississippi river at mouth, \$4,200,000; New Jersey Intracoastal Waterway, \$2,100,000. Meanwhile the committee regrets that "conditions do not permit inclusion in this bill of several highly meritorious projects which have recently been given the approval of the Board of Engineers for Rivers and Harbors." These projects, it adds, "would benefit the general public enormously, but due to their relatively high cost of construction it was deemed advisable by the committee to defer action until a later date."

## Equipment and Supplies

### LOCOMOTIVES

THE CENTRAL OF BRAZIL has renewed its inquiry for about 25 locomotives. Walde-mar Coimbra Luz, is general manager, Praca da Republica, Rio de Janeiro, Brazil.

### FREIGHT CARS

THE WABASH will build 35 caboose cars in its own shops. Inquiry for this equipment was reported in the *Railway Age* for March 4, page 399.

THE MAINE CENTRAL has ordered from the Magor Car Corporation, 250 box cars, 40 ft. 6 in. long and 50 box cars, 50 ft. 6 in. long, all of 40 tons' capacity.

THE LEHIGH & NEW ENGLAND was incorrectly reported in the tabulation of March orders, *Railway Age* of April 8, page 632, as having ordered 100 covered hopper cars instead of open hopper cars.

### PASSENGER CARS

THE PULLMAN COMPANY has placed an order with the Pullman-Standard Car Manufacturing Company for two sleeping cars for use in the City of Denver of the Union Pacific-Chicago & North Western. Each car will contain four roomettes, four double bedrooms, three compartments and one drawing room.

### IRON AND STEEL

THE ATCHISON, TOPEKA & SANTA FE has made arrangements with the mills for the rolling of 50,000 tons of rails, its 1939 requirements.

THE GRAND TRUNK WESTERN has ordered 1,960 tons of rails, placing 1,430 tons with Carnegie-Illinois Steel Corporation, and 530 tons with Inland Steel Company.

THE ERIE has ordered 15,167 tons of rails, placing 12,135 with the Carnegie-Illinois Steel Corporation, 1,972 with the Bethlehem Steel Company, and 1,060 tons with the Inland Steel Company.

THE NEW YORK, CHICAGO & ST. LOUIS has ordered 2,400 tons of rails, placing 1,560 tons with the Carnegie-Illinois Steel

Corporation, 440 tons with the Inland Steel Company and 400 tons with the Bethlehem Steel Company.

### SIGNALING

BOSTON & MAINE.—Sealed bids will be received by H. M. Rainie, purchasing agent of this road, 150 Causeway street, Boston, Mass., until 10:00 a. m., May 2, on grade crossing protection material for Rollinsford N. H.

ATLANTIC COAST LINE.—Sealed proposals will be received by this road until 11:00 a. m., May 3, for furnishing highway grade crossing signal protection to be installed under federal grade crossing program in the State of South Carolina. F. H. Fechtig, purchasing agent, Wilmington, N. C.

THE ST. LOUIS-SAN FRANCISCO has placed an order with the Union Switch & Signal Company for the apparatus required to install automatic block signalling on 45 miles of its single-track line from Sapulpa, Okla., to Henryetta. Style S semaphore signals are being used, with the field installation work to be carried out by the railroad company's signal construction forces.

GEORGIA.—Sealed proposals will be received by the State Highway Board of Georgia until 11:00 a. m., April 27, for furnishing materials for railroad grade crossing signal installation to be installed under federal grade crossing program in Valdosta, Ga. Further information may be obtained from F. H. Fechtig, purchasing agent, Atlantic Coast Line, Wilmington, N. C.

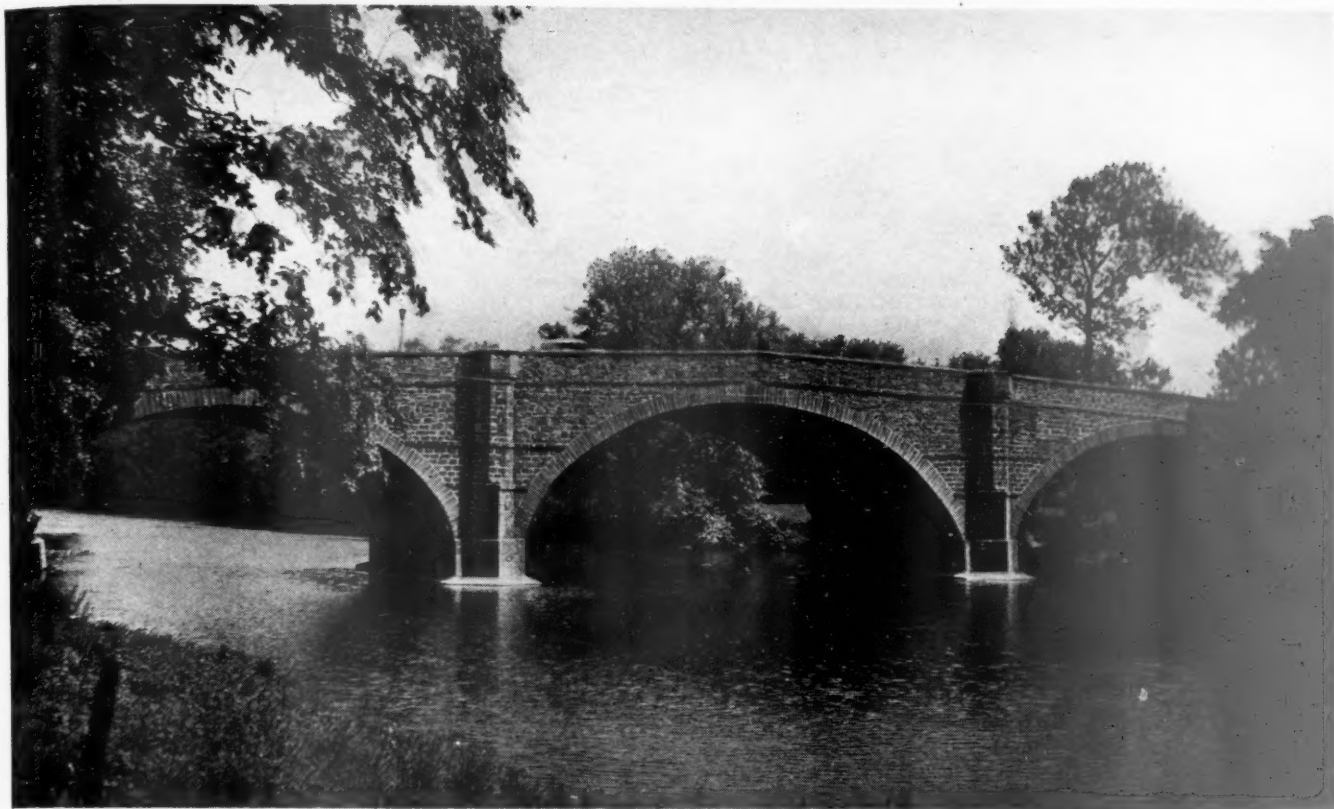
UTAH RAILWAY.—Sealed proposals will be received at the office of C. E. Beveridge, division engineer of this road, P. O. Box 360, Helper, Utah, until 10:00 a. m. (c.s.t.) April 29, for furnishing the necessary materials and labor for installing complete, excluding foundations, one set of grade crossing protective devices to be installed under the federal grade crossing program in the State of Utah.

RUTLAND.—Sealed proposals will be received by L. G. Morphy, receiver of this road, until 2:00 p. m., April 28, for furnishing the necessary materials for two flashing light highway crossing signals to be installed under the federal grade crossing program of the State of Vermont. Further information may be obtained from R. C. Arnoll, purchasing agent, Rutland, Vt.

THE ATCHISON, TOPEKA & SANTA FE.—Sealed proposals will be received at the office of the general purchasing agent of this road, Railway Exchange building, Chicago, until 10:00 a. m. (c.s.t.) May 1, for the furnishing of material necessary for the installation of two flashing light highway grade crossing signal projects, under the federal grade crossing program in the State of Arizona. Separate bids will be received at the same time and place for the furnishing of material necessary for the installation of one flashing light highway grade crossing signal project in the State of California.

Continued on next left-hand page

## NO. 87 OF A SERIES OF FAMOUS ARCHES OF THE WORLD



### PERKIOMEN CREEK BRIDGE PENNSYLVANIA

The Perkiomen Creek Bridge, near Collegeville, Pennsylvania, carries the Ridge Turnpike, a highway dating back to colonial times that connects Philadelphia and Reading. Built in 1798 of native red sandstone laid in lime mortar, the bridge has a total length of 350 ft. and consists of five spans which are symmetrical about the center of the bridge. The middle arch has a span, at the springing line, of 76 ft. and is flanked on either side by a 61 ft. arch. Each of these arches have an adjacent, or end arch, with a span of 30 ft. The roadway is 33 ft. above normal water level, and has a width of 42 ft. between parapets.

\* \* \* \* \*

The Security Sectional Arch has played a leading part in providing low-cost steam transportation and fuel economy. But only when you have a complete arch, with every brick in place, can you realize the full efficiency of your arch.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER  
REFRACTORIES CO.**  
*Refractory Specialists*



**AMERICAN ARCH CO.  
INCORPORATED**  
60 EAST 42nd STREET, NEW YORK, N. Y.  
*Locomotive Combustion  
Specialists*



## Supply Trade

**Walter F. Munford**, superintendent of the **American Steel & Wire Co.'s** Cuyahoga works, Cleveland, Ohio, has been appointed assistant to vice-president (operations) at the main office.

**Frank W. Doyle**, member of the **Waukesha Motor Company**, Waukesha, Wis., sales staff for the past three years, has been appointed to the West Coast branch to represent both the engine and refrigeration divisions of the company.

**C. R. MacBride** has been appointed manager of the engineering service department of the **A. M. Byers Company**, Pittsburgh, Pa., according to an announcement of M. J. Czarniecki, vice-president in charge of sales. Mr. MacBride has been transferred from the Boston, Mass., division sales office to assume his new duties. He was formerly in the service of the Edgewater Steel Company.

Following the new responsibilities assumed by **Harry Glaenser**, vice-president of the **Baldwin Locomotive Works**, in charge of engineering, and the appointment of **Ralph P. Johnson** as chief engineer as announced in the *Railway Age* of April 15, page 678, **Charles F. Krauss** and **E. J. Harley, Jr.**, will assist Mr. Johnson, each with the title of assistant chief engineer.

**Paul A. Condit** has joined the **Cooper-Bessemer Corporation**, Mt. Vernon, Ohio, in the capacity of control engineer. He was employed for a time in railroad signal work in conjunction with inductive automatic train control and automatic interlocking. Mr. Condit was with the Mason-Neilan Regulator Company as development engineer until his recent affiliation with the Cooper-Bessemer Corporation. His headquarters will be at Mt. Vernon.

**Charles L. Heater**, who has been elected vice-president of the **American Steel Foundries**, Chicago, as announced in the *Railway Age* of April 15, was born in



Charles L. Heater

Mandan, N. D., on August 5, 1894, and was graduated from Purdue University in 1917. Upon graduation, he entered the army air service and served overseas for

eighteen months as captain of the 11th Aero Squadron. On November 1, 1919, at the end of the war, he entered the employ of the American Steel Foundries as a traveling apprentice, and after working in various plants throughout the country, was appointed sales agent at Chicago on January 1, 1925. He held this position until April 1, 1932, when he was promoted to general sales engineer. On November 1, 1937, he became assistant vice-president.

**Herbert K. Williams**, assistant to the president and secretary of the **Safety Car Heating & Lighting Co.**, New York, was elected vice-president and **J. H. Michaele**, assistant secretary and assistant treasurer was elected secretary and assistant treasurer, at a meeting of the board on April 18. Mr. Williams was born at Orange, N. J., in 1888. He was graduated from Orange High School in 1905, and immediately entered the employ of the Safety Car Heating & Lighting Co., as a clerk in the office of the mechanical engi-



Herbert K. Williams

neer. After six years of service in the engineering and executive departments of the company and at the time the axle lighting system for railway passenger equipment cars was just coming into prominence, Mr. Williams was transferred to the factory and spent a large part of his time in the laboratory in a general study of the theory and design of axle lighting and equipment. In 1916 he was assigned to the New York sales district as representative; two years later the export business of the company was consolidated in the department over which Mr. Williams was placed in charge although at the same time he continued his connection with the New York sales district. He was appointed sales engineer in 1926 and in 1928 he was appointed manager of the equipment department in charge of sales. In April, 1933, he was appointed assistant to the president and since June, 1936, Mr. Williams also served as secretary of the company.

## OBITUARY

**E. L. Langworthy**, who was associated with the Adams & Westlake Company for over 50 years, during 30 of which he was eastern manager, died at his home in Philadelphia, Pa., on April 11, at the age of 84 years.

## Financial

**ALABAMA GREAT SOUTHERN.**—*Annual Report.*—The 1938 annual report of this road shows net income, after interest and other charges, of \$1,496,179, a decrease of \$324,485 compared with net income of \$1,820,664 in 1937. Selected items from the income statement follow:

|                                     | 1938        | Increase<br>or<br>Decrease<br>Compared<br>with<br>1937 |
|-------------------------------------|-------------|--|
| RAILWAY OPERATING REVENUES          | \$6,796,233 | -\$531,945   |
| Maintenance of way                  | 975,394     | -4,539   |
| Maintenance of equipment            | 1,548,755   | -87,318  |
| Transportation                      | 2,096,276   | -197,558   |
| TOTAL OPERATING EXPENSES            | 5,045,299   | -285,278   |
| NET REVENUE FROM OPERATIONS         | 1,750,933   | -246,666   |
| Railway tax accruals                | 715,184     | +41,339  |
| Hire of equipment                   | 532,897     | +451,074   |
| Joint facility rents                | 154,005     | +1,170   |
| NET RAILWAY OPERATING INCOME        | 1,414,642   | +161,899   |
| Other income                        | 647,993     | -415,331   |
| TOTAL INCOME                        | 2,062,635   | -253,433   |
| Rent for leased roads and equipment | 19,659      | +80  |
| Interest on funded debt             | 423,840     | .....  |
| NET INCOME                          | \$1,496,179 | -\$324,485   |

**ATCHISON, TOPEKA & SANTA FE.**—*Annual Report.*—The 1938 annual report of this road shows net income, after interest and other charges, of \$8,228,044, an increase of \$568,640 over net income for 1937. Selected items from the income account follow:

|                                    | 1938          | Increase<br>or<br>Decrease<br>Compared<br>with<br>1937 |
|------------------------------------|---------------|--|
| RAILWAY OPERATING REVENUES         | \$154,323,226 | -\$16,346,719  |
| Maintenance of way                 | 19,755,022    | -7,527,405   |
| Maintenance of equipment           | 33,480,711    | -6,382,655   |
| Transportation—Rail                | 57,470,658    | -4,865,463   |
| TOTAL OPERATING EXPENSES           | 120,412,014   | -19,489,725  |
| Operating ratio                    | 78.03         | -3.94  |
| NET REVENUE FROM OPERATIONS        | 33,911,212    | +3,143,007   |
| Railway tax accruals               | 14,988,199    | +2,021,923   |
| Railway operating income           | 18,026,118    | +949,008   |
| Equipment and joint facility rents | 896,894       | +172,076   |
| NET RAILWAY OPERATING INCOME       | 18,026,118    | +949,008   |
| Other income                       | 3,850,247     | -269,107   |
| GROSS INCOME                       | 21,876,365    | +679,901   |
| Rent for leased roads              | 354,064       | -43,095  |
| NET INCOME                         | \$8,228,044   | +\$568,640   |

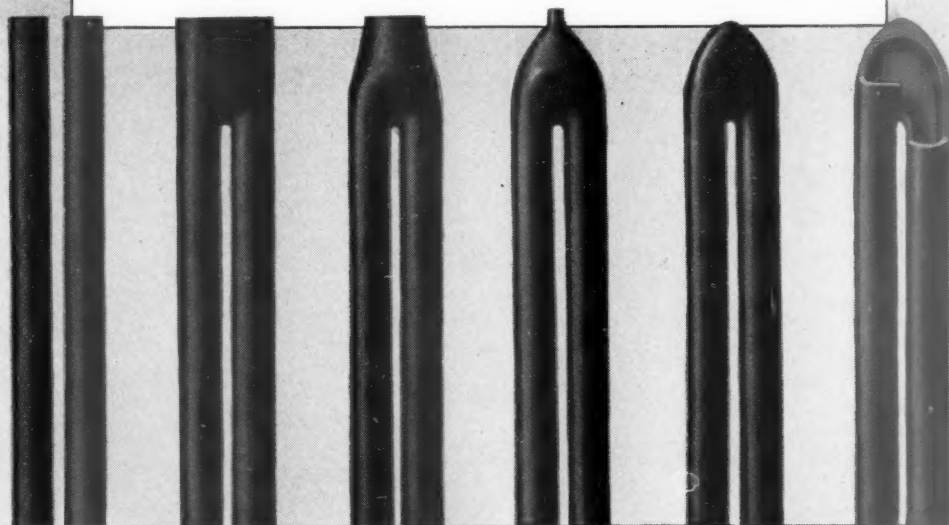
**CHESAPEAKE & OHIO.**—*Alleghany President Resigns.*—G. A. Tomlinson has submitted his resignation as president of the Alleghany Corporation, top holding company in the so-called Van Sweringen system of companies. He was elected president of the corporation in January, 1938, succeeding C. L. Bradley. Mr. Tomlinson has been concerned with the Alleghany and its properties since 1935 when he became

# Machine-Die-Forging Does What Nothing Else Can Do

It forms the return bends from the superheater tubing itself.

This provides a homogeneous metal structure with but one coefficient of expansion. This is important, as the operating temperature of superheater units changes from atmosphere to as high as 2,000 deg. F., and back again, and two coefficients of expansion would result in a fractured unit.

Elesco stands for intelligent superheater design.



A-1315

## THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK

122 S. Michigan Ave., CHICAGO

Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL

Superheaters • Exhaust Steam Injectors • Feed Water Heaters • American Throttles • Pyrometers • Steam Dryers

associated with George A. Ball in purchasing the Van Sweringen holdings.

**BESSEMER & LAKE ERIE.—Annual Report.**—The 1938 annual report of this road shows net income, after interest and other charges, of \$1,237,198, a decrease of \$554,813 as compared with net income in 1937. Selected items from the income account follow:

|                              | 1938        | Increase or Decrease Compared with 1937 |
|------------------------------|-------------|---|
| RAILWAY OPERATING REVENUES   | \$8,544,912 | -\$9,040,275                            |
| Maintenance of way           | 1,034,095   | -553,537                                |
| Maintenance of equipment     | 2,358,940   | -1,228,343                              |
| Transportation               | 1,825,278   | -914,530                                |
| TOTAL OPERATING EXPENSES     | 5,738,059   | -2,760,728                              |
| NET REVENUE FROM OPERATIONS  | 2,806,853   | -6,279,547                              |
| Railway tax accruals         | 964,233     | -1,178,545                              |
| Railway operating income     | 1,842,619   | -5,101,001                              |
| Net rents                    | 272,183     | -343,491                                |
| NET RAILWAY OPERATING INCOME | 2,114,803   | -5,444,493                              |
| Other income                 | 21,307      | -57,444                                 |
| TOTAL INCOME                 | 2,136,111   | -5,501,938                              |
| Rent for leased roads        | 18,128      | +12,166                                 |
| Interest on funded debt      | 799,929     | -3,750                                  |
| TOTAL FIXED CHARGES          | 858,173     | +47,598                                 |
| NET INCOME                   | \$1,237,198 | -\$5,548,183                            |

**CHICAGO, INDIANAPOLIS & LOUISVILLE.—Trustee's Compensation.**—Division 4 of the Interstate Commerce Commission has ordered that Holman D. Pettibone, trustee of this company, be paid at the rate of \$18,000 a year for his services, beginning as of January 1, 1939.

**CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—Annual Report.**—The 1938 annual report of this company shows net income, after interest and other charges, of \$2,213,790, a decrease of \$1,048,798, as compared with net income of \$3,262,588 in 1937. Selected items from the income statement follow:

|                                     | 1938         | Increase or Decrease Compared with 1937 |
|-------------------------------------|--------------|---|
| RAILWAY OPERATING REVENUES          | \$15,240,548 | -\$1,703,195                            |
| Maintenance of way                  | 1,967,473    | -37,845                                 |
| Maintenance of equipment            | 3,166,767    | -96,179                                 |
| Transportation                      | 3,978,462    | -273,885                                |
| TOTAL OPERATING EXPENSES            | 10,052,947   | -440,959                                |
| NET REVENUE FROM OPERATIONS         | 5,187,600    | -1,262,236                              |
| Railway tax accruals                | 1,595,488    | +159,186                                |
| Hire of equipment                   | 555,085      | +540,401                                |
| Joint facility rents                | 150,508      | -3,101                                  |
| NET RAILWAY OPERATING INCOME        | 3,996,689    | -877,921                                |
| Other income                        | 89,338       | -24,819                                 |
| TOTAL INCOME                        | 4,086,027    | .....                                   |
| Rent for leased roads and equipment | 1,681,767    | -17,558                                 |
| NET INCOME                          | \$2,213,790  | -\$1,048,798                            |

**DULUTH, SOUTH SHORE & ATLANTIC.—Annual Report.**—The 1938 annual report of this company shows net deficit, after interest and other charges, of \$1,077,417,

an increase of \$614,475 over net deficit in 1937. Selected items from the income account follow:

|                              | 1938        | Increase or Decrease Compared with 1937 |
|------------------------------|-------------|---|
| Average Mileage Operated     | 548.86      | -0.47                                   |
| RAILWAY OPERATING REVENUES   | \$1,832,784 | -\$1,013,489                            |
| Maintenance of way           | 382,299     | -46,608                                 |
| Maintenance of equipment     | 351,234     | -143,818                                |
| Transportation               | 898,007     | -167,133                                |
| TOTAL OPERATING EXPENSES     | 1,747,744   | -398,555                                |
| Operating ratio              | 95.36       | +19.95                                  |
| NET REVENUE FROM OPERATIONS  | 85,040      | -614,933                                |
| Railway tax accruals         | 162,000     | +44,811                                 |
| Railway operating income     | *76,959     | -659,743                                |
| Equipment rents—Net Dr.      | 31,853      | -69,307                                 |
| Joint facility rents—Net Dr. | 18,052      | -62                                     |
| NET RAILWAY OPERATING INCOME | *126,865    | -590,374                                |
| Interest on funded debt      | 65,606      | -346,038                                |
| NET DEFICIT                  | \$1,077,417 | +\$614,475                              |

\* Deficit.

**ELGIN, JOLIET & EASTERN.—Annual Report.**—The 1938 annual report of this company shows net income, after interest and other charges, of \$272,132, a decrease of \$1,226,788 as compared with net income in 1937. Selected items from the income account follow:

|  | 1938         | Increase or Decrease Compared with 1937 |
|--|--------------|---|
| RAILWAY OPERATING REVENUES                 | \$12,079,176 | -\$9,261,011                            |
| Maintenance of way                         | 1,251,041    | -663,561                                |
| Maintenance of equipment                   | 2,565,892    | -1,895,872                              |
| Transportation                             | 5,097,589    | -2,770,744                              |
| TOTAL OPERATING EXPENSES                   | 9,523,072    | -5,396,774                              |
| Operating ratio                            | 78.84        | +8.93                                   |
| Railway tax accruals                       | 1,252,444    | -156,241                                |
| Railway operating income                   | 1,303,659    | -3,707,995                              |
| Equipment and joint facility rents—Net Dr. | 142,791      | -1,145,593                              |
| NET RAILWAY OPERATING INCOME               | 1,160,868    | -2,562,402                              |
| Other income                               | 77,385       | -91,184                                 |
| GROSS INCOME                               | 1,238,253    | -2,653,587                              |
| Rent for leased roads                      | 346,348      | -1,441,883                              |
| Interest on funded debt                    | 500,000      | .....                                   |
| NET INCOME                                 | \$272,132    | -\$1,226,788                            |

**GEORGIA SOUTHERN & FLORIDA.—Annual Report.**—The 1938 annual report of this company shows net deficit, after interest and other charges, of \$266,652, an increase of \$213,272 as compared with net deficit of \$53,380 in 1937. Selected items from the income statement follow:

|                             | 1938        | Increase or Decrease Compared with 1937 |
|-----------------------------|-------------|---|
| RAILWAY OPERATING REVENUES  | \$2,061,106 | -\$346,971                              |
| Maintenance of way          | 353,431     | -49,384                                 |
| Maintenance of equipment    | 427,779     | -65,688                                 |
| Transportation              | 924,281     | -30,076                                 |
| TOTAL OPERATING EXPENSES    | 1,810,941   | -152,876                                |
| NET REVENUE FROM OPERATIONS | 250,164     | -194,095                                |
| Railway tax accruals        | 186,285     | +25,258                                 |

|                                    |           |            |
|------------------------------------|-----------|------------|
| Hire of equipment                  | 21,234    | -4,440     |
| Joint facility rents               | 12,855    | -2,962     |
| NET RAILWAY OPERATING INCOME       | 29,788    | -211,952   |
| Other income                       | 7,575     | -2,623     |
| TOTAL INCOME                       | 37,364    | -214,575   |
| Interest on funded debt            | 293,525   | .....      |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 304,016   | -1,303     |
| NET DEFICIT                        | \$266,652 | +\$213,272 |

**ERIE.—Bond Interest Payment.**—This road announces that its trustees will pay interest coupons, due November 1, 1938, appertaining to New York, Lake Erie & Western Coal & Railroad, First Mortgage, Series "A," 5½ per cent bonds, due May 1, 1942, by authority from the United States District Court.

**KANSAS CITY SOUTHERN.—Annual Report.**—The 1938 annual report of this road shows net income, after interest and other charges, of \$347,273, as compared with net income of \$842,128 in 1937, a decrease of \$494,855. Selected items from the income account follow:

|                              | 1938         | Increase or Decrease Compared with 1937 |
|------------------------------|--------------|---|
| RAILWAY OPERATING REVENUES   | \$12,980,448 | -\$1,194,386                            |
| Maintenance of way           | 1,330,454    | -95,881                                 |
| Maintenance of equipment     | 1,830,025    | -236,860                                |
| Transportation               | 3,868,121    | -304,483                                |
| TOTAL OPERATING EXPENSES     | 8,375,550    | -672,487                                |
| Operating ratio              | 73.62        | +2.16                                   |
| NET REVENUE FROM OPERATIONS  | 4,604,897    | -521,898                                |
| Railway tax accruals         | 1,180,682    | +99,197                                 |
| Railway operating income     | 3,424,215    | -621,096                                |
| Equipments rents—Net Dr.     | 445,581      | -135,709                                |
| Joint facility rents—Net Dr. | 111,817      | +19,427                                 |
| NET RAILWAY OPERATING INCOME | 2,866,815    | -504,813                                |
| Other income                 | 254,885      | -37,174                                 |
| TOTAL INCOME                 | 3,121,700    | -541,989                                |
| Rent for leased roads        | 15,500       | .....                                   |
| Interest on funded debt      | 2,681,510    | -27,566                                 |
| TOTAL FIXED CHARGES          | 2,743,231    | -31,482                                 |
| NET INCOME                   | \$347,273    | -\$494,855                              |

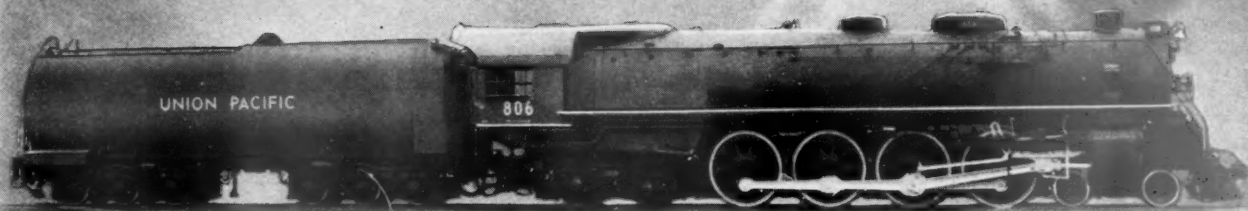
**MINNEAPOLIS & ST. LOUIS.—Receiver's Certificates.**—The receiver has asked the Interstate Commerce Commission for authority to issue \$326,000 of receiver's certificates to renew a like amount outstanding.

**NEW ORLEANS & NORTHEASTERN.—Annual Report.**—The 1938 annual report of this company shows net income, after interest and other charges, of \$46,044, a decrease of \$183,737 as compared with net income of \$229,781 in 1937. Selected items from the income statement follow:

|                            | 1938        | Increase or Decrease Compared with 1937 |
|----------------------------|-------------|---|
| RAILWAY OPERATING REVENUES | \$3,048,641 | -\$227,632                              |
| Maintenance of way         | 390,573     | -6,926                                  |
| Maintenance of equipment   | 424,830     | -3,132                                  |
| Transportation             | 943,405     | -51,692                                 |
| TOTAL OPERATING EXPENSES   | 1,979,262   | -49,582                                 |

Continued on next left-hand page





## Annual Saving 50.21 Per Cent

**T**WENTY new 4-8-4 type steam locomotives were placed in service on the Union Pacific in the fall of 1937. During the 12 month period ending December 31, 1938, these locomotives made 3,597,945 miles in heavy fast passenger service, or practically 15,000 miles per month. They showed an availability for service of 93.4 per cent.

As compared to previous 4-8-2 type locomotives they effected a saving in maintenance cost of \$301,148. Owing to increased capacity there was a saving of 1,249,030 train miles or approximately 1¼ million dollars. Allowing for fixed charges, including depreciation, interest on the investment, taxes, and maintenance of equipment, the net annual savings of the 20 locomotives represented a return of 50.21 per cent on the investment.

**15 more are under order.**



**AMERICAN LOCOMOTIVE COMPANY**

**30 CHURCH STREET-NEW YORK-N.Y.**

|                                    |           |            |
|------------------------------------|-----------|------------|
| NET REVENUE FROM OPERATIONS        | 1,069,378 | -178,049   |
| Railway tax accruals               | 364,385   | -34,960    |
| Hire of equipment                  | 415,054   | +40,246    |
| Joint facility rents               | 125,159   | +2,018     |
| NET RAILWAY OPERATING INCOME       | 415,098   | -181,316   |
| Other income                       | 26,888    | +125       |
| TOTAL INCOME                       | 441,986   | -181,191   |
| Interest on funded debt            | 392,325   | .....      |
| TOTAL DEDUCTIONS FROM GROSS INCOME | 395,942   | +2,547     |
| NET INCOME                         | \$46,044  | -\$183,737 |

NEW YORK, SUSQUEHANNA & WESTERN.—*Annual Report.*—The 1938 annual report of this road shows net deficit, after interest and other charges, of \$545,771, an increase of \$111,487 as compared with net deficit in 1937. Selected items from the income statement follow:

|                              | 1938        | Increase or Decrease Compared with 1937 |
|------------------------------|-------------|---|
| RAILWAY OPERATING REVENUES   | \$2,957,895 | -\$277,041                              |
| Maintenance of way           | 292,088     | +22,905                                 |
| Maintenance of equipment     | 307,357     | -38,802                                 |
| Transportation               | 1,212,795   | -149,184                                |
| TOTAL OPERATING EXPENSES     | 2,030,375   | -132,311                                |
| Operating ratio              | 68.64       | +1.79                                   |
| NET REVENUE FROM OPERATIONS  | 927,519     | -144,730                                |
| Railway tax accruals         | 408,500     | +60,894                                 |
| Railway operating income     | 519,019     | -205,624                                |
| Net rents—Dr.                | 470,192     | +113,845                                |
| NET RAILWAY OPERATING INCOME | 48,826      | -319,470                                |
| Other income                 | 64,745      | +4,344                                  |
| TOTAL INCOME                 | 113,572     | -315,125                                |
| TOTAL FIXED CHARGES          | 647,559     | -8,033                                  |
| NET DEFICIT                  | \$545,771   | +\$111,487                              |

ST. LOUIS-SOUTHWESTERN. — *Guilder Bonds.*—The guilder cases of the St. Louis Southwestern will be argued for the second time in the Supreme Court of the United States next week, probably on April 28. The Cotton Belt litigation involves the entire issue of bonds issued under the road's First Terminal and Unifying Mortgage, aggregating about \$21,000,000. The bonds, which have matured through acceleration resulting from bankruptcy of the railroad, contain an option clause permitting bondholders to elect payment in Dutch guilders, which, if exercised as of the date of the railroad's bankruptcy in 1935, would increase the principal amount of the issue to approximately \$38,000,000. The Guaranty Trust Company, trustee under the mortgage, filed a claim in the road's reorganization proceedings for guilder value. The Cotton Belt trustee and the Southern Pacific majority stockholder, contend that the foreign money option clause was invalidated by the Joint Resolution of Congress in 1933, abrogating gold clauses. They contended further that the Guaranty Trust Company has no power to make an election of any sort, but that this power is reserved to the bondholders. The federal district court ruled that the bonds are payable in United States money on the devalued basis, holding that under previous decisions of the Supreme Court, the guilder clause is ineffective and that

the claim for the dollar value of Dutch guilders is barred. The circuit court of appeals affirmed the decision of the district court.

The second case involves the claim of the Chemical Bank & Trust Company, trustee under the road's fourth mortgage, on about \$13,500,000 of the Terminal bonds held by the bank as security for the fourth mortgage bonds. The trustee contended that these pledged bonds are not entitled to guilder treatment.

SOUTHERN.—*R. F. C. Loan Extension.*—Division 4 of the Interstate Commerce Commission has approved an extension of time of payment for a period ending not later than April 29, 1944, of a loan by the Reconstruction Finance Corporation to this company in the amount of \$4,852,124, maturing April 29, 1939.

### Dividends Declared

Wheeling & Lake Erie.—Prior Lien, \$1.00, quarterly; 5½ Per Cent Preferred, \$1.38½, quarterly, both payable May 1 to holders of record April 22.

### Average Prices of Stocks and Bonds

|   | Apr. 18 week | Last year |
|---|--------------|-----------|
| Average price of 20 representative railway stocks.. | 26.29        | 25.59     |
| Average price of 20 representative railway bonds..  | 57.71        | 56.69     |

## Construction

GREAT NORTHERN.—A contract amounting to \$70,355 has been awarded the Bernard-Curtiss Company, Minneapolis, Minn., by the Board of County Commissioners of Spokane County, Spokane, Wash., for the construction of a bridge over the tracks of the Great Northern at Francis avenue in Spokane. The structure will consist of two 70-ft. spans, three 71-ft. spans and three 45-ft. spans over the 19 existing tracks of this railroad, with provision for six additional future tracks. The deck, of reinforced concrete construction, will provide a 24-ft. roadway and 4-ft. side-walks on each side.

SOUTHERN PACIFIC.—A contract covering the relocation of an additional five-mile section of this road around the Shasta reservoir site, Central Valley project, Cal., has been awarded by the Secretary of the Interior Harold L. Ickes. Granfield, Farar & Carlin, San Francisco, received the contract at \$296,000. The contract covers the earthwork and structures, with the exception of the Doney Creek bridge and two underpasses, for this section of the relocation between Pollock and Delta, and in addition the earthwork, structures, and surfacing of about 2½ miles for the relocated Highway No. 99. See item in the March 18 issue of the *Railway Age*, page 505.

UNION PACIFIC.—Improvement work to cost \$46,000 will be started immediately in the Union Pacific yards at Green River, Wyo. The improvements will consist of the installation of 5,500 ft. of new side tracks, the relocating of scales and water facilities and the extension of the passenger station platform 360 ft. The work will be done by company forces.

## Railway Officers

### EXECUTIVE

Fred H. Law, general traffic manager of the Illinois Central, with headquarters at Chicago, has been elected vice-president



Fred H. Law

in charge of traffic, to succeed Charles C. Cameron, who will retire on May 1.

Mr. Law was born at Sheridan, Ill., on November 10, 1876, and entered railway service on the Illinois Central in 1897 as a stenographer at St. Louis, Mo. In October, 1909, he was appointed commercial agent at Pittsburgh, Pa., and in February, 1912, he was advanced to assistant general freight agent at Memphis, Tenn. A year later he was transferred to St. Louis, Mo., and in February, 1918, he was transferred to Chicago. In June, 1925, Mr. Law was promoted to general freight agent at Chicago and in July, 1928, he was advanced to assistant freight traffic manager. He was further advanced to assistant traffic



Charles C. Cameron

manager in June, 1931, and on December 1, 1931, he was appointed assistant to the vice-president in charge of traffic. In July, 1935, his title was changed to general traffic manager, the position he held at the time of his recent promotion.

Mr. Cameron was born at St. Louis, Mo.,



on August 14, 1869, and entered railway service in 1882 as a messenger boy in the freight department of the Wabash at St. Louis. On November 1, 1894, he went with the Illinois Central as a clerk in the general freight office at New Orleans, La. In 1896, he was transferred to Louisville, Ky., and he was later advanced to chief clerk at that point. On December 1, 1899, he was promoted to assistant general freight agent at Louisville, and on February 1, 1903, he was advanced to general freight agent. Mr. Cameron was transferred to Memphis, Tenn., in 1905, and to Chicago in 1907. In 1909, he was appointed coal traffic manager, and in 1914, he was reappointed general freight agent at Chicago. On June 1, 1925, he was advanced to assistant freight traffic manager and on July 1, 1928, he was further advanced to freight traffic manager. Mr. Cameron was promoted to general traffic manager in June, 1931, and on December 1 of that year he was elected vice-president in charge of traffic.

### FINANCIAL, LEGAL AND ACCOUNTING

**E. B. Hardin**, general auditor of the Durham & Southern and of the Piedmont & Northern, with headquarters at Charlotte, N. C., has been elected treasurer and general auditor of both roads, with the same headquarters.

**U. S. Ure**, auditor of station accounts on the Union Pacific at Omaha, Neb., has been promoted, effective April 24, to assistant treasurer, with the same headquarters, succeeding **C. T. Cullen**, who will retire on that date.

### OPERATING

**C. M. Connor** has been appointed superintendent transportation of the Western Maryland, with headquarters at Hagerstown, Md., succeeding **E. R. Rouzer**, whose death on April 7 was noted in the *Railway Age* of April 15.

**H. A. Greeniaus**, assistant to vice-president and general manager of the Eastern lines of the Canadian Pacific, with headquarters at Toronto, Ont., has been appointed acting general superintendent of the New Brunswick district, relieving **T. C. Macnabb**, who has been temporarily assigned to other duties.

**M. L. Long**, assistant superintendent of the labor and wage bureau, Eastern Region of the Pennsylvania, with headquarters at Philadelphia, Pa., has been appointed acting superintendent of the labor and wage bureau, Western Region, with headquarters at Chicago, relieving **W. W. Burrell**, who has taken a leave of absence because of illness.

**William T. Loudon**, general manager of the Missouri & Illinois Bridge & Belt, with headquarters at Alton, Ill., will retire on May 1. Mr. Loudon entered railway service on May 1, 1884, as a messenger boy in a division operating office of the Hannibal & St. Joseph (now part of the Chicago, Burlington & Quincy), and later became a chief clerk in the operating department.

On May 1, 1906, he was appointed superintendent of the Missouri & Illinois Bridge & Belt, with headquarters at Alton and in September, 1918, he was promoted to general manager. During the period of federal control of the railroads, Mr. Loudon served as terminal manager of the Alton-Wood River district for the group of railroads operating in that territory and was also general manager of the Illinois Terminal.

**Walter W. Patchell**, superintendent on special duty in the office of the chief electrical engineer of the Pennsylvania at Philadelphia, Pa., has been promoted to general superintendent on the Lake division, Central Region, with headquarters at Cleveland, Ohio, succeeding **T. C. Herbert**, who has taken a leave of absence because of illness.

**J. P. Jackson**, whose appointment as superintendent of the Shenandoah division of the Norfolk & Western at Roanoke, Va., was noted in the *Railway Age* of April 8, began his railroad career as a rodman in the engineering department in June,



J. P. Jackson

1924. Five years later he was promoted to assistant roadmaster on the Radford division and on November 1, 1933, was transferred to Lynchburg, Va., as acting roadmaster on the Norfolk division, becoming roadmaster in the following year. Mr. Jackson was appointed assistant superintendent of the Shenandoah division in October, 1935, and served in that capacity until March, 1938, when he was transferred to the Scioto division as assistant superintendent, the position he held until his recent appointment.

**H. H. Pevler**, division engineer in the office of the chief engineer of the Pennsylvania at Philadelphia, Pa., has been promoted to superintendent of the Logansport division, with headquarters at Logansport, Ind., succeeding **J. A. Schwab**, whose transfer to the Delmarva division, with headquarters at Cape Charles, Va., was announced in the *Railway Age* of April 1.

Mr. Pevler was born at Waynetown, Ind., on April 20, 1903. After graduating from Purdue University, he entered railway service with the Pennsylvania on May 4, 1927, as an assistant on the engineering corps of the Philadelphia Terminal division and four months later was promoted

to assistant supervisor of track, with headquarters at Camden, N. J. The following year he was transferred to Altoona, Pa., and on April 8, 1929, he was advanced to



H. H. Pevler

supervisor of track, holding this position successively at York, Pa., Parkton, Md., Camden, Middletown, Pa., and Washington, D. C. On May 1, 1935, he was promoted to division engineer of the St. Louis division, with headquarters at Terre Haute, Ind. A short time later, he was transferred to the Ft. Wayne division and in May, 1936, to the Pittsburgh division. In August, 1937, he was transferred to the chief engineer's office at Philadelphia.

### TRAFFIC

**Winfield H. Emlet** has been appointed foreign freight agent of the Baltimore & Ohio, with headquarters at Philadelphia, Pa., succeeding **James T. Lean**, promoted.

**W. I. Alexander**, chief of the rate section, rate and tariff bureau, Canadian National, has been appointed chief of tariff bureau, lines Armstrong, West Fort William, Ont., and east.

**Guy R. Glover**, whose promotion to general freight agent on the Chicago, Burlington & Quincy, with headquarters at Denver, Colo., was announced in the *Rail-*



Guy R. Glover

*way Age* of April 15, was born at Denver, Colo., on July 12, 1903. He entered the service of the Colorado & Southern in



WHEN YOU GO TO THE

*The Loc*  
*for*

*See*

**GENERAL MOTORS**

Visitors to the World's Fair will be able to see the inner workings of the Diesel locomotive through glass sections in its side.

# NEW YORK WORLD'S FAIR

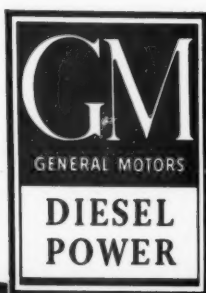
## *Locomotive of Today*

### THE WORLD OF TOMORROW...

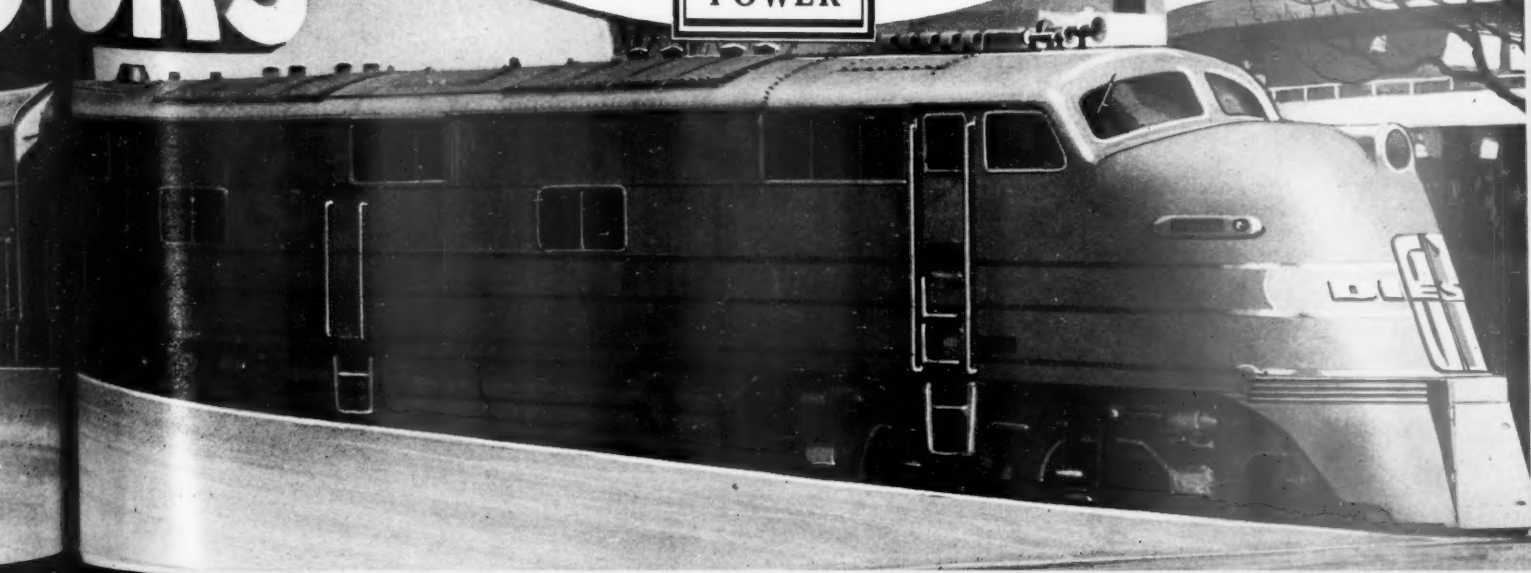
**P**OWERED by 4-1000 horsepower General Motors 12-cylinder, 2-cycle, "V"-type Diesel engines, this locomotive has high starting tractive effort—smooth and rapid acceleration—and is capable of speeds up to 117 miles per hour. Overall length is 141 feet and weighs 605,000 pounds. Fuel capacity—2400 gallons; water capacity—2200 gallons.

**EMC Diesel Locomotives Lead The Way**

**ELECTRO-MOTIVE CORPORATION**  
SUBSIDIARY OF GENERAL-MOTORS LA GRANGE, ILLINOIS, U. S. A.



**MOTORS**





May, 1918, and in 1920, he resigned to attend the Denver University School of Commerce. He returned to the C. & S. the following year as a stenographer and later advanced through the positions of rate clerk, chief rate clerk and chief of tariff bureau. On January 1, 1930, Mr. Glover was promoted to assistant general freight agent, with headquarters at Denver and on October 7, 1935, he was appointed assistant general freight agent for the Burlington at Omaha, Neb., the position he held at the time of his recent promotion.

**James T. Lean**, foreign freight agent for the Baltimore & Ohio and the Alton, with headquarters at Philadelphia, Pa., has been transferred to Chicago, replacing **John Crossman**, who has resigned.

**Roy E. Barr**, assistant traffic manager on the Illinois Central, with headquarters at Chicago, has been promoted to freight traffic manager in charge of commercial work, with the same headquarters, a newly created position, and **William Haywood**, freight traffic manager, has been appointed freight traffic manager in charge of solicitation. **Joseph L. Sheppard**, assistant traffic manager, with headquarters at St.

join the coal department of the Edward & Bradford Lumber Company as sales manager, serving later as vice-president and subsequently as president of the Great



**Joseph L. Sheppard**

West Coal & Lumber Company. When the Knox Consolidated Coal Company of Indiana was organized, Mr. Barr became its Northwestern manager, with headquarters in Chicago, and in July, 1930, he was appointed manager of the Chicago office of the Consolidated Coal Company. He resigned from the latter position to become general coal agent of the Illinois Central, with headquarters at Chicago, in March, 1932. In July of the same year he was advanced to coal traffic manager and in February, 1936, he was promoted to assistant traffic manager.

Mr. Sheppard was born at Greenville, S. C. on June 11, 1881, and entered railway service on July 1, 1896, on the Illinois Central as a messenger in the office of the assistant general freight agent at Memphis. He was later promoted through various clerical positions in that office, the local agent's office, the commercial office and the general freight office. On March 1, 1910, he was advanced to chief clerk in the latter office and three years later he was promoted to assistant general freight agent at Memphis. Mr. Sheppard was further advanced to general freight agent



**Roy E. Barr**

Louis, Mo., has been advanced to freight traffic manager in charge of rate matters, with headquarters at Chicago, a newly created position, and **Robert A. Trovillion**, general freight agent at Chicago, has been promoted to assistant freight traffic manager at Chicago, a newly created position. **Ernest J. Carr**, general traffic agent at Birmingham, Ala., has been promoted to assistant traffic manager at St. Louis, replacing Mr. Sheppard and **Willis L. Reeves**, general freight agent at Memphis, Tenn., has been transferred to Chicago, relieving Mr. Trovillion. **Robert W. Quindley**, assistant general freight agent at Memphis, has been promoted to general freight agent at that point, succeeding Mr. Reeves. The above appointments are effective on May 1.

Mr. Barr was born in Mechanicsburg, Ohio, and first entered business in 1902, when he became connected with the American Express Company at Chicago. Later that year he went with the Illinois Central, where he held various positions in the freight traffic department, becoming particularly concerned with matters pertaining to coal traffic. In 1917, he resigned to



**Robert A. Trovillion**

on June 2, 1926, and on February 20, 1932, he was transferred to Chicago. He was appointed assistant traffic manager at St. Louis, Mo., on February 1, 1935.

Mr. Trovillion was born at Golconda, Ill., on August 26, 1887, and entered railway service as a stenographer in the office of the assistant general freight agent of the Illinois Central at St. Louis on December 10, 1906. He served in various capacities until February 15, 1916, when he was transferred to Chicago as assistant chief clerk in the general freight department. On January 16, 1918, he obtained a leave of absence to join the U. S. Army, and after the war he returned to the Illinois Central as chief clerk in the general freight department at Chicago. Mr. Trovillion was promoted to assistant general freight agent on May 19, 1925, and on February 1, 1935, he was further advanced to general freight agent, the position he held at the time of his recent promotion.

## ENGINEERING AND SIGNALING

**C. F. Trowbridge**, division engineer of the Philadelphia Terminal division of the Pennsylvania at Philadelphia, Pa., has been transferred in the same capacity to the Pittsburgh division, with headquarters at Pittsburgh, Pa. **J. D. Morris**, division engineer of the Renovo division at Erie, Pa., has been transferred in the same capacity to the Philadelphia Terminal division, with headquarters at Philadelphia. **E. L. Hoopes**, division engineer of the Philadelphia division at Harrisburg, Pa., has been appointed assistant to chief engineer maintenance of way, with headquarters at Pittsburgh. **P. X. Geary**, engineer, Washington Terminal Company, has been appointed division engineer, Philadelphia division, with headquarters at Harrisburg.

## MECHANICAL

**C. H. Eitel**, chief draftsman of the Central of Georgia, with headquarters at Savannah, Ga., has been appointed engineer of tests.

## OBITUARY

**M. J. Hayes**, master mechanic of the Trenton, Hamilton & Buffalo, with headquarters at Hamilton, Ont., died at Atlanta, Ga., on April 8 while enroute home from Florida.

**Everett E. Cain**, assistant to vice-president of the Pere Marquette, with headquarters at Detroit, Mich., died at the Henry Ford hospital in that city on April 19.

**Edward H. Ziegler**, who retired on August 31, 1937, as assistant division superintendent on the Cleveland, Cincinnati, Chicago & St. Louis (Big Four), with headquarters at Indianapolis, Ind., died at that point on April 12, his 65th birthday.

**Samuel H. West**, former general attorney for the St. Louis-Southwestern, died at his home in Clayton, Mo., on April 5. Mr. West was born in Washington County, Ark., in 1863, and entered railway service in 1889, in the legal department of the Cotton Belt at St. Louis, Mo. He later became head of the legal department but resigned in 1915 to enter the private practice of law.